



UNITED NATIONS EDUCATIONAL,
SCIENTIFIC AND CULTURAL ORGANIZATION

**DISTANCE EDUCATION IN ASIA AND THE PACIFIC:
COUNTRY PAPERS**

**VOLUME I
AUSTRALIA - REPUBLIC OF KOREA**

**A Study conducted by
The National Institute of Multimedia Education, Japan**

**Director-General: Hidetoshi Kato
Project Director: Suk-Ying Wong**

Editorial Committee:

Geoff Arger
Joanne LaBonte
Suk-Ying Wong
Chaiyong Brahmawong
Takehiko Kariya
Aya Yoshida

The Division of Higher Education of the UNESCO Secretariat produced, during 1983-1989, thirty-six titles in the series *Papers on Higher Education* (a complete list of titles appears on the last page). From 1990, this series will continue in a new form *New Papers on Higher Education* with two sub-titles: one, *Studies and Research* and the other, *Documentation of Meetings*.

Studies published in the series *New Papers on Higher Education: Studies and Research*:

1. Evaluation Procedures used to Measure the Efficiency of Higher Education Systems and Institutions. A study conducted by: The International Association for Educational Assessment. Coordinator: W.B. Dockrell. UNESCO 1990. ED-90/WS-10 (English only).
2. *Study Service in Adult Education: Analysis of an Experience*. A study conducted by the Faculty of Education, University of Lujan, Argentina. Coordinator: Sylvia Brusilovski. UNESCO 1990. ED-89/WS-103 (English/French).
3. *L'Enseignement Supérieur et le Monde du Travail*. A study coordinated by Noel Terrot for the World Federation of Teachers' Unions. UNESCO 1990. ED-89/WS-40 (French only).
4. *Africa: A Survey of Distance Education 1991*. A study conducted by the International Council for Distance Education and the International Centre for Distance Learning. Coordinator: Keith Harry. UNESCO 1991. ED-91/WS-42 (English only).
5. *Latin America and the Caribbean: A Survey of Distance Education 1991*. A study conducted by the International Council for Distance Education and the international Centre for Distance Learning. Coordinator: Keith Harry. UNESCO 1991. ED-91/WS-44 (English only).
6. *Conceptual Analysis and Methodological Results of the Project: Management and Assessment of Interdisciplinary Training at the post-university level*. A study conducted by P. Metreveli et al. UNESCO 1992. ED-92/WS-7 (English only).
7. *Asia and the Pacific: A Survey of Distance Education 1992*. 2 Volumes. A study conducted by the National institute of Multimedia Education, Japan. UNESCO 1992. ED-92/WS-7 (English only).

Note by the Secretariat

The present collection of country papers on Distance Education in the Asia and Pacific region is a detailed and wide-ranging study which confirms the wealth of resources available in this specific geographical area.

The collection complements a survey of resources related to distance learning in the same region. Both have been produced for UNESCO by the National Institute for Media Education, Japan.

This document links to other surveys on existing distance learning resources carried out by UNESCO in Africa, Latin America and on a worldwide basis. In these activities, our partner has been the International Centre for Distance Learning at the Open University, U.K.

At the UNESCO International Consultation on Higher Distance Learning, held at Deakin University, Victoria, Australia from 6-11 September 1987, great importance was attached to the efficient collection and dissemination of information and statistical data. Therefore, the various surveys constitute an effective response to that call for the sharing of resources.

Throughout its long involvement in distance education, UNESCO has accorded priority to components which must underpin the development of these systems of learning: clear policy-making, the pooling of resources, the necessity for a strong infrastructure of personnel to assure academic standards and the need to develop close linkages between higher distance education and the world of work.

If these priorities are observed, distance education can continue to evolve and expand through the design of innovative programmes, experimentation in the uses of advanced technologies and because of its capacity to attract new learners with extremely varied profiles and educational needs.

In view of these challenges, it is hoped that increased information on higher distance education resources, both human and material, will help strengthen the exchange of expertise in this field.

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PREFACE

Distance education in Asia and the Pacific has been "booming in the past few decades. In order to respond to increasing demand for highly trained human resources for socio-economic development in the countries in the region, the government of each and every nation has paid special attention to the possibilities of distance learning in higher education. Moreover, rapid technological innovations require continuing education even for university graduates.

Thanks to the contemporary Electronic revolution, " people who are in need of such educational opportunities can have relatively easy access to university teaching by means of broadcasting and telecommunication. It was within this context that the Asian Development Bank, in cooperation with the UNESCO regional office, initiated an intensive seminar on distance education in 1986, the outcome of which was compiled in two volumes.

The National Institute of Multimedia Education (NIME), with a mission of innovating higher education especially with utilization of various media, was more than happy to accept conducting the overall survey of distance education in the region when such a request came from UNESCO in 1990. Though we could work with our colleagues in the area only by correspondence, they were extremely cooperative and eager to participate to make this project successful. On behalf of the Institute, I must express my deepest gratitude and respect to all contributors, without whom this research could not be possible. At the same time, I appreciate the assistance and advice given by UNESCO, from both its headquarters in Paris and its regional office in Bangkok, with whom we have thoroughly enjoyed our collaboration. I also thank the International Centre for Distance Learning (ICDL) of the Open University in the United Kingdom who has provided helpful comments throughout the project. It is our pleasure and honor if this publication can serve to further advance distance education not only in the region but also in other parts of the world.

Hidetoshi Kato
Director-General
National Institute of Multimedia
Education, Japan

INTRODUCTION

In recent years, distance education has emerged as one of the most feasible modes of instruction that aims at bridging many of the educational objectives and practices between the formal and the non-formal sector. For the last decade, distance education has attracted educators and policy makers as a new measure of educational provision. Especially in Asia and the Pacific, distance education institutions and/or programmes have developed rapidly and played an important role. Despite its importance and wide scope of practice in many countries, not enough is known about distance education in this region.

In light of this, UNESCO and the National Institute of Multimedia Education (NIME), Japan have completed this project, Distance Education in Asia and the Pacific to add to our knowledge of where distance education stands at the present time. We initiated the project by inviting experts to write a case study and to co-ordinate the gathering of questionnaires about distance education institutions in their countries. For various reasons, we could not survey the entire Asian and Pacific area, but through the responses collected here, perhaps a comprehensive picture of the region emerges. The resulting case studies are attributed to their individual authors, while the survey has been compiled by us based on the efforts of the country coordinators and those who completed the questionnaires. Our efforts are therefore presented in two parts. The first part contains the case studies outlining the growth and environment of distance education. The second part presents a compilation of the surveys covering distance education institutions throughout the region.

Regarding the surveys, a few methodological points should be noted. Our primary objective is to systematically organize and present the data based on the information supplied to us by each country. As such, the amount of detail varies. Furthermore, in most cases the entries have been proofread by the participants and some have been subsequently updated. Thus, the information included here is as current as possible. However, the process of compiling questionnaire responses runs the risk of discrepancies. Therefore, we apologize for any errors that might exist.

Our editing policy of the case studies has been directed to presenting a uniformity of style. Aiming at clarity and coherence, this has in some cases required the editing of length. Regardless, we have fully retained each author's individual viewpoints, and hope the integrity of their work remains intact. In addition, we have included all references and citation information provided by the authors, including those which refer to sources in languages other than English. Compiling international references presents a challenge of accuracy due to varying customs of bibliographic format. Interested readers may therefore wish to contact authors directly for more comprehensive citations.

This is only the beginning. We have much more to learn about distance education and its potential in the future. The information collected here will hopefully serve not only as a general reference for people unfamiliar with this innovative mode of learning, but will also inform and inspire those who are involved in planning and decision-making in distance education, as well as administrators, educators, and academics. This work is the result of a collaboration among many experts and practitioners in the field. We thank them for the research they have done and for sharing their knowledge and experience. As pioneers in a young and growing field, we have come far in expanding the horizons of conventional education. By taking a moment to reflect on the past and present of distance education, the insights we gain from sharing our experiences may spur us on to an auspicious and enlightened future.

The Editorial Committee
National Institute of Multimedia
Education (NIME), Japan

Distance Education in Asia and the Pacific:

AUSTRALIA

Geoff Arger

THE NATIONAL CONTEXT FOR DISTANCE EDUCATION

Australia is an advanced industrial nation with a population of sixteen million and in the late 1980s a budget outlay of \$41,628 billion (1986/87). Within that budget outlay the amount allocated to education was \$2,898 billion. While there has been some small variation since then this percentage (7%) has been reasonably consistent. The Commonwealth of Australia is a federation of States - New South Wales, Victoria, Queensland, South Australia, Western Australia and Tasmania - together with Territories administered by the Commonwealth. The most important of these are the Northern Territory and the Australian Capital Territory where the nation's capital, Canberra, is located. Federation combined the previous colonies of states in 1901.

Most of Australia's sixteen million people live in large coastal cities - either the state capitals or major cities on the south and east coast. It is a multicultural nation with over 20% of the population born overseas. Most were born in either the United Kingdom or Ireland, but a significant proportion of those arriving in recent decades have come from southern Europe and the Middle East. Refugees from Indo-China constituted the greatest proportion of Australia's refugee intake during the 1980s.

The indigenous people of Australia - Aborigines and Torres Strait Islanders - make up about 1% of Australia's population. Many of these live in rural and outback areas, especially in Queensland, New South Wales, Western Australia and the Northern Territory, rather than in major cities. Nevertheless there are substantial communities of Aborigines in the cities, particularly Sydney and Brisbane.

Some Aboriginal community schools teach traditional languages, as do ethnic community schools, usually outside school hours but it must be considered that the primary language of instruction in Australia is English. Nevertheless there are many opportunities to study in other languages in high schools.

Constitutionally education is the responsibility of the States. But the Federal Government has become heavily involved in higher education particularly because of funding arrangements. Within the states, education in government schools (75%) is controlled by State Education Departments usually headed by a Director-General of Education and responsible to a government minister. Centralization is a feature of the administration of public education in all states of Australia. Staffing, curriculum planning and resources are the responsibility of the department. The goal of public education in Australia is equality of opportunity for all students, urban or rural. This is expressed in a common curriculum within each state. Across Australia, curriculum difference is more a matter of degree or emphasis rather than content. Distance education in Australia fits into the ethos of equality of education and uniformity of practice.

The public schools are financed through a redistribution of federal tax. Australia's universities and Colleges of Advanced Education (CAEs) are autonomous institutions established under Acts of State Parliament and are the only institutions with the power to

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establishment of universities and colleges is a state responsibility and traditionally they were state funded. Tertiary education is now almost completely funded by the Commonwealth. Under a series of trade-off agreements in 1974, the Commonwealth undertook total funding responsibilities for the tertiary sector in order to achieve its policy objective of free tertiary education. Thus since 1975 there have been no tertiary tuition fees. In the 1986/87 budget an administrative charge of \$250.00 (Aus) was introduced. In 1988/89, charges were introduced and levied as a tax on future or present income, known as the Higher Education Contribution Scheme (HECS). Technical and Further Education Colleges (TAFE) are essentially vocationally orientated but also provide adult non-vocational education and are funded mainly by the states (75% State and 25% Commonwealth). Federal Education Commissions formulate and administer federal education policy within the government's financial guidelines.

Australia is a large continent covering an area of approximately seven million square kilometres. Nevertheless it has a very extensive telephone and telecommunications system. Most Australians, except those in the most remote outback, have telephones and/or radio phones and can receive at least one national carrier both on television and over radio - the Australian Broadcasting Commission (ABC). Australia is known as one of the leaders in digital telecommunications. The postal system is efficient, with mail between capital cities taking between two and three days and mail to the outback, even to some of the smaller rural stations, usually takes no more than two weeks unless there is inclement weather. Newspapers tend to be state based with two major chains. Television ownership and provision is similarly state based. The national carrier, the ABC, provides both national and local state programs.

It would be true to say that the communications system in Australia is an efficient one with the variety of modes of distribution becoming a modern industrial nation. Satellite communications to the outback are increasing with the use of satellite dishes.

HISTORY AND BACKGROUND

Australia has a total surface area of almost seven million square kilometres and a population of sixteen million people. Australia is a highly urbanized country with almost 70% of its population living in cities along the coastal regions and over 50% of the population in capital cities. Distance education in Australia has therefore been a large part of the educational system at primary, secondary and tertiary levels since the turn of the century when Australia federated.

Distance education in Australia is provided in three different sectors; the school sector (Primary and Secondary), the Technical and Further Education sector (TAFE), and what is called the higher education sector. The latter is made up of the universities and the old Teachers Colleges which became Colleges of Advanced Education (CAE) in the 1960s. Many of these are now universities in their own right or part of multi-campus universities.

Distance education at primary and secondary levels commenced in Australia soon after the turn of the century, when this mode of teaching was used to provide education to children in outback and rural areas. It should be emphasized here that because of the politically powerful influence of rural grazier, the people in the rural outback have always had far greater political lobbying strengths, skills and access to a political system which is biased towards them rather than city people. This has arisen partly because of the needs of a

conservative coalition and partly because of Australia's dependence on rural export commodities.

The teaching material used for distance education at this time was initially print based and students were normally assisted by a member of the family. These correspondence lessons were sent out from the individual state correspondence schools attached to the state based Departments of Education and from here the Australian Schools of the Air evolved. Again these Schools of the Air were state based. From the beginning, and up to the present, a small group of teachers based in broadcasting studios and using short wave radio transmission gave daily assistance to students spread over tens of thousands of kilometres.

Technical and Further Education Colleges in Australia have generally been responsible for providing education at the trade level. However they have also been involved in short vocational courses and now provide courses at the diploma or sub-professional level in vocational type areas. The TAFE Colleges have a tradition of teaching at a distance since the late 1920's-1930's and are state based. There are six TAFE Correspondence Colleges.

In the post secondary education sector Distance education also commenced soon after the turn of the century. The University of Queensland, established in 1910, was required by law in its initial charter to introduce a correspondence program. The University of Western Australia entered into Distance education in its first five years. During and after World War II there was an upsurge in distance teaching as the universities co-operated to enable returned service personnel to continue with university studies. Major universities including Sydney and Melbourne entered into this scheme but both ceased the practice by the end of the 1940's. The University of New England presently has the greatest number of external enrollments of any tertiary institution in Australia and first offered external studies in 1955.

What were known as CAEs in the period from the 1960's to the 1980's grew out of the Teachers Colleges. As the Teachers Colleges related to teacher education they were state funded. The CAEs were also state funded, although these funds came in a direct grant from the Federal Government. In the 1960's these teacher training colleges were allowed to widen their offerings and became CAEs. This was the beginning of a binary system of tertiary education; so called because of its two elements - universities and colleges. The universities offered academic degrees and the colleges professional diplomas. The universities were funded by the Federal Government on an autonomous basis for research as well as teaching. The colleges were also funded from the Federal Government but through the State Government and only for teaching, not research.

Many of the colleges and some of the universities were not situated in population growth areas so an attractive way to increase student numbers was by offering some of their courses through the Distance education mode. This resulted in forty-three colleges and five universities offering some of their courses through Distance education by 1988. Significantly only three of those universities and a few of the colleges were in metropolitan areas.

In an attempt to reduce the high overhead costs associated with the proliferation of small colleges in the late 1970's, the government used fiscal methods to force the amalgamation of some adjacent institutions. This led to substantial opposition **and lost the** government much support. In 1987 a different political party abolished the binary system and offered financial inducements to colleges and universities to amalgamate. Essentially the government stated it would offer a funding level for research and teaching only to institutions with more than the equivalent of 9,000 full-time students (for government funding purposes,

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part-time and distance education student loads are converted to the equivalent full-time load). For those institutions with between 5,000 and 9,000 students it would only give funding for teaching and research to those faculties which were able to specifically justify it; those institutions with less than 5,000 would only be funded for teaching; and those with less than 3,000 would not be funded in the national system.

Distance education policy was also changed in 1987. The government announced that funding for external (distance) students would be the same as for on-campus students but funded on the assumption that 75% was for teaching and 25% was for the delivery and development of teaching material. Only designated Distance Education Centres (DECs) could deliver and develop such courses. Designation was limited to eight institutions and based on size and level of the Distance education professional infrastructure. It must be emphasized that most of the colleges offering Distance education courses in 1989 continue to offer them in 1990 and 1991 but had to do so under the auspices of a DEC. The result of these two policy changes has been a series of amalgamation often between institutions separated by long distances. A good example of this is the University of New England in northern New South Wales. The new university is a result of the amalgamation of the old University of New England in Armidale; the Armidale College of Advanced Education; Northern Rivers College of Advanced Education 400km away, north east in Lismore; and Orange Agricultural College in Orange over 600 km south east of Armidale and over 1000km from Lismore. The University also has a small growth campus 200km east of Armidale at Coffs Harbour. Distance is a major difficulty facing the new university.

The eight Distance Education Centres that were subsequently designated are geographically spread across the country and have varying features. Characteristics that tend to be common are that they are multi-campus across distance, the students are distanced from the face to face teacher and they have more than 2,000 Distance education students from any campus. The University of New England is the largest in both geographical diversity and external student enrollment, which is currently more than 10,000.

It should be noted that the two DECs in Queensland are in the regional centres of Toowoomba and Rockhampton, and the latter has small growth campuses in the nearby cities of Gladstone, Mackay and Bundaberg. Charles Sturt University (CSU) centred in New South Wales encompasses the widely separate regional cities of Bathurst and Wagga and has a growth campus in Albury/Wodonga. One of the Victorian centres links the eastern part of Melbourne, Victoria's capital, with Churchill, a small rural town in Gippsland, and Deakin University links a large industrial city, Geelong, with the regional city of Warnambool. In South Australia the Centre is in the state capital Adelaide and in Western Australia the Centre is in the State capital, Perth. The eight Distance Education Centres are The University College of Central Queensland, The University College of Southern Queensland, The University of New England, Charles Sturt University, Monash University, Deakin University, and University of South Australia and Western Australia Distance Education Consortium. Whilst all are national institutions, approximately 80% of the students are from the home state.

It is worthwhile at this point to briefly describe the institutional structure of the Distance Education Centres. All are based on what is often called The New England Model of Distance Education, after the system which was established in the mid-1950's at the University of New England. It was an exemplar model for international tertiary distance education developments prior to the open universities which flourished from the 1970's

onwards. In Australia it was the model that all universities and colleges, established from the 1960's onward, followed. The previous model from The University of Queensland (U of Q) had a separate division of external studies with its own teaching staff. The New England model did not have a separate teaching division; it had a Department of External Studies which was responsible for administration and student services. In the 1970's some of the larger institutions offering distance education added a development unit to assist in the improvement of teaching material, but ironically the University of New England did not do this until the late 1980's.

The essential characteristic of the University of New England Model is that the institution is dual mode with on-campus and off-campus students. The on-campus curriculum is the same as for off-campus students. Equivalence between the two modes was thus ensured at a time when the concept of distance education was still being questioned. The implications of this are wide ranging because the dual mode system has the same curriculum for internal and external students, the same teachers; the same examinations and the same opportunity for interaction. But it must be acknowledged that counselling by on-campus staff is done by phone and face to face tutoring, during residential schools for external students. There may be on-campus residential schools, usually four days per subject, per semester, and weekend schools in capital cities such as Sydney. Audio tapes have been despatched since the late 1960's.

The University of New England presently uses interactive radio and television as well as interactive videoconferencing and teleconferencing. In effect, the same lectures given on campus are put into print with technology enrichment. The strength of this model is that on and off-campus students have parity. The weakness in the early model was the lack of a ready place in the organization for professional distance education developers and residential schools became important as a means of teaching. This trend has been reversed from the late 1970's onwards and now in the early 1990's all Distance Education Centres have development units and residential schools are becoming less important.

As noted, with the decline in the importance of the residential schools there has been an increase in the use of technology. The use of audio tapes, particularly for foreign language teaching, started at the University of New England in the 1960's and was further developed in the 1970's. The use of teleconferencing via telephones and videos was developed in the 1970's and 1980's. The University of New England broadcasts both audio and video programs on radio and television. So while print remains the core medium, there is a wide ranging use of other technologies.

THE LEGAL STATUS OF DISTANCE EDUCATION

The legal status of distance education is difficult to delineate, largely because it has been an integral part of the education system in Australia since its creation in 1901. From the beginning, state school departments were offering educational opportunities to students in remote areas through correspondence and later through the School of the Air. Technical and Further Education colleges from the 1930's onwards also offered in rural and remote areas similar courses to those they were offering on-campus students.

At the higher education level, the University of Queensland in 1910 and the University of Western Australia in 1911 in their initial charters had to provide education for those unable to attend on-campus studies. An example of the enabling by-law is the

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University of New England Bill (Act 34, 1953) which was passed in December 1953 and gave the Council of the new autonomous university power to:

establish within the university a Department of External Studies for the purpose of providing appropriate tuition for students who are unable to attend lectures at the university and of enabling degrees to be conferred upon such of them as, by examinations satisfy the requirements of the university.

OVERVIEW OF CURRENT SITUATION

Aims and Objectives of Distance Education

There are no overall aims and objectives of distance education as they vary from institution to institution. They tend to be concerned with issues of access and equity. The following are examples:

The college endeavours to meet the needs of groups which have, for many reasons, been disadvantaged in the education system. It seeks to break down the barriers that have denied access to higher education by Aboriginal people, women and people with disabilities.

(External Studies Guide, The South Australian College of Advanced Education, 1991, p 3).

And further:

...External Studies has a vital role to play in ensuring access to higher education for people in rural and geographically isolated areas--The university considers it has a valuable role to play in using external studies to provide access to higher education for educationally and socio-economically disadvantaged adults...(Designation as a Distance Education Centre: A Submission to the Department of Employment, Education and Training, The University of New England, 1988)

Control, Organization and Management Structure of Distance Education

The levels of distance education provision include the schools, TAFE Colleges and the higher education level. Provision of these services is State and Federal Government funded, it is neither private nor jointly established. At the school level the funding comes as part of the normal state education department budget. A proportion of that is given to the state correspondence school, which is part of the management structure of the Department of Education, responsible to the minister. Likewise, the TAFE correspondence schools come within the Technical and Further Education Department, which is responsible through the Director-General to the State Minister.

Funding for the universities and CAEs (it must again be emphasized that by 1991 most CAEs amalgamated with universities to create a nationally uniform system) comes from the Federal Government, but they are autonomous institutions. All of them are dual mode institutions so again distance education is not a separate establishment within the universities. There are Distance Education Centres but they come within the established university structures. The net result is that there is actually no overall governing body for distance education in Australia. In the last three years the National Distance Education Council was established, with sub-committees considering areas such as technology, data base and standards. This is not a governing body; but rather a policy development committee.

The responsibilities of administration, setting academic standards, resource planning, management and dissemination of information are distributed throughout the management

structure of the state schools and TAFE departments, and also within the autonomous management structures of the university. Thus the relationship between distance education and other education institutions is difficult to determine because distance education is part of the same structure and is not a separate institution. In many ways this might be seen as the strength of the Australian model.

Financing Distance Education

The source of financial support for Distance Education Centres and programs is largely from State and Federal funding. However, while the Commonwealth is by far the dominant source of financial support (for instance in higher education it provided 84.5% of net income in 1986) other sources have steadily increased in importance over recent years. Total income from non-Commonwealth sources rose to 15.5% in 1986. Growth in the different items of non government revenue has been uneven, reflecting in part the different strengths of the university and advanced education sectors. For instance the universities, particularly the long established ones, appear better able to derive income from endowments, bequests and donations, whereas some of the old CAEs are benefiting from their traditionally close links with industry. In the Commonwealth sector there has been a growth in university funding through sources such as the Australian Research Grants Committee; these sources provide funds earmarked for specific research projects. Table 1 shows the sources of income for higher education.

Budgetary comparisons between distance education and non-distance institutions are very difficult to make in the Australian context as funding is often not separately designated. Nevertheless it is instructive to look at the differences in the eight Distance Education Centres, between the ratio of internal to external teaching as shown in the following table.

SOURCE:	<u>Universities</u>			<u>Advanced education</u>		<u>Higher education</u>	
	1979	1983	1986	1983	1986	1983	1986
<u>Commonwealth Government:</u>							
CTEC	86.2	82.1	78.3	89.2	82.0	84.5	79.7
Other	4.8	6.6	7.2	1.1	1.0	4.7	4.8
Total	91.0	88.6	85.5	90.3	82.9	89.2	84.5
<u>State Government:</u>							
Total	0.7	0.6	0.9	1.0	5.8	0.7	2.8
<u>Non-government:</u>							
Investments	2.2	4.2	5.0	3.1	3.3	3.8	4.3
Endowments, donations and grants	3.5	4.3	5.2	0.1	0.4	2.9	3.4
Other:	2.7	2.3	3.4	5.5	7.5	3.4	5.0
Total	8.3	10.8	13.6	8.7	11.3	10.1	12.7
Total all	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The University of New England at Armidale (UNE) is the only DEC to show external costs substantially lower than internal levels at 82%. In the first round of estimates,

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Charles Sturt produced similar results to UNE but is now included with the majority of DEC's in a middle placed group. It should be noted that UNE has had problems with the depreciation item and if this is omitted, the ratio of external to internal cost rises from 82% to 88%. UNE is still on its own relative to the other DEC's even with this adjustment.

Levels of Cost and Evidence of Economies of Scale

UNE has the lowest external cost relative to internal and is one of the nation's most important suppliers with over 3,000 external EFTSU and 41 % of it's total load in this mode. The low percentage does not, however, correlate with a low dollar cost. UNE is one of the DEC's with the highest per EFTSU costs in both modes at \$7,700 to \$9,300. The cost data do not therefore, appear to show obvious evidence of economies of scale, although this assertion must be tempered by a recognition that the absolute level of average per EFTSU costs will be strongly influenced by the discipline mix at an institution. These have not been factored out in this study.

The two Queensland DEC's estimated at the lowest absolute levels of costs among the remaining DEC's at \$5,300 per EFTSU at Southern Queensland and \$6,300 at Central Queensland. All other DEC's reported costs of upwards to the \$7-8,500 range, with (limited) external costs at each institution generally about 1-5% lower than internal....(EX Harman, *The Cost of Distance Education at Australian Distance Education Centres*, 1991, pp 9-12)

Geographical Coverage of the Provision of Distance Education

At the school and TAFE level there are no geographical limits other than state boundaries. In other words, students anywhere in the state with the department's permission can study at distance, both at school and at the TAFE level. The eight Distance Education Centres at the higher tertiary education level are not state bound, but are national providers. They tend to be parochial, however, and 75-80% of the students study at a DEC in their home state. Nevertheless all of them would be able to point to students from the other side of the country. It is well worth emphasizing that most of the Distance Education Centres like the University of New England have the majority of their students in urban areas close to, or in proximity of, on-campus teaching. The provision of distance education which started in Australia at the beginning of the century for rural and remote students is now providing opportunities for those who elect to study by distance education in whatever institution they choose.

Instructional Systems

The primary method of delivery utilized for distance education at all three levels is print despatched by mail. There are some significant exceptions to this, such as the internationally famous School of the Air. Nevertheless even they have very strong print components. The radio component is more for tuition and interaction. The TAFE system is using satellite transmission for one-way video/two-way audio and also for graphic transfers in some states. The Distance Education Centres at the higher education level also use print as the core medium but include other technologies as part of their teaching materials. Audio has been used since the mid-1960's particularly in the development of language teaching at a distance. Video has been used since the 1980's and some universities, especially the University of New

England, have developed a wide range of video material. The University of New England also uses broadcast radio and broadcast television.

An interesting development in the provision of the instructional systems of distance education will occur in 1992 when a two-year trial of television based open learning (at tertiary level) will occur. Eight to ten first year accredited university courses will be presented with integral television components. These will be accompanied by print material which will remain the core learning medium.

Enrollment in Distance Education

The most recent figures available for distance education are based on 1990 enrollments. The statistics for higher education (Universities, CAEs, TAFE) are published in the *Selected Higher Education Statistics 1990* by the Federal Department of Employment, Education and Training. Due to the nature of higher education funding and administration the data is more readily available for universities. The state based primary and secondary correspondence schools data is not as easy to collect.

The type of enrollment is broken down into external and internal full-time and internal part-time; for the purposes of this paper full-time and part-time internal will be grouped together as internal. In 1990 there were 52,712 external students and 432,363 internal students (299,511 FT, 132,852 PT) enrolled in higher education institutions in Australia. Therefore the ratio of external to internal students is one external student to eight internal students. Of those 52,712 external students, 22,666 were new to their course of study. Data pertaining to higher education graduates is not defined in terms of internal or external study; the combined graduates from all disciplines at higher education institutions in Australia was 90,482 in 1990.

International Affiliation and Co-operation

Many individuals and departments in Distance Education Centres are members of The Australian and South Pacific External Studies Organization (ASPESA's) - which covers Australia, New Zealand, The South Pacific and Papua New Guinea. Many of ASPESA's members also hold membership of the International Council for Distance Education (ICDE). Their membership is now in excess of eighty individual members as well as significant institutional participation.

Growth and Expansion

There appears to be no planned expansion to distance education in Australia in the next 5-10 years. Growth may come from the Distance Education Centres at the tertiary level if those centres cannot fill their student quotas by internal on-campus students. It is unlikely that growth will occur in correspondence schools as there is a slow de-population of the rural and remote areas. Whilst the service will continue it is doubtful that the population will increase in those areas. This is probably also the case for TAFE correspondence colleges.

The major factor hindering the expansion of tertiary distance education development in Australia is the system of funding. As has been emphasized throughout this chapter, funding is provided by the State and Federal Government. They fund on a quota system, for a fixed number of students - student demand is not taken into account in determining student enrollment. Institutions or separate departments use their budget to service their enrolled students, if they exceed the budget there is no increased funding.

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There seems to be little doubt that in some subjects the enrollment could be doubled. But institutions are unlikely to get increased funding so student numbers are not significantly increased. If there was to be growth in distance education in Australia it would only be within the projected growth for education in general. Such growth may occur because of a change in preference for distance education at the tertiary level. There is likely to be a decline at the school and correspondence level with the continuing de-population of rural and remote areas.

Problems and Issues

Although 25% of schools in Australia are private, there is only one small private tertiary institution. Government funds thus dominate the education sector. It is a matter of ongoing concern whether private sector funding rather than Government funding will support expansion in distance education.

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Appendix I

Research Activities in Distance Education

Research in distance education is vast. The following are taken from the publication *Research in Distance Education* published by Deakin University in 1989 as an example.

Morgan, A. What ever happened to the silent revolution? Research theory and practice in distance education.

Grace, M. Hermeneutic theory in research in distance education.

Evans, T. Putting theory into place: developing a theory-based comparative research project in distance education.

Guy, R. Research and distance education in third world contexts.

Campion, M. Post-Fordism and research in distance education.

Bigum, C. Chaos and educational computing: deconstructing distance education.

Nation, D. Reporting research in distance education.

Altrichter, H. Action research in distance education: some observations and reflections.

Nunan, T. A case-study of research methods course development for Masters awards.

Holt, D, Petzall, S. and Viljoen, J. Before and after: MBA participants' first year experiences of distance learning.

Mousley, J and M. Rice. Pedagogical evaluation and change: teaching and research in mathematics distance education.

Ellerton, N and Clements, K. Culture, curriculum and mathematics distance education.

Thompson, D. If it's good for you do you have to swallow it? Some reflections on interaction and independence from research into teletutorials.

Castro, A. Tinker, taylor, soldier, spy.....Roles and challenges in evaluative studies of technological innovations.

McNamara, S. At the end of the line is a learner - *whom is* distance education really for?

The following papers are an example of the research taking place at the Distance Education Centres, from the 1990 research report of the University of New England.

Australia

Arger,G. 'Distance Education in the Third World' *Open Learning*, Vol 6, No.1, Longman Group Ltd. Essex, February 1991.

Australia

Arger,G. 'The Use of Interactive Video Using Compressed Data Techniques in Australian Distance Education' *Distance Education: Development and Access*, ICDE, Caracas, October 1990. '

Arger,G & Tran Dinh Tan 'VIPOU, Vietnamese People's Open University: The Evolution of an Ideal' *Distance Education: Development and Access*, ICDE, Caracas, October 1990.

Arger,G & Jones,G. 'Videoconferencing for Distance Education: Tomorrow's Technology Today' *The Telecommunication Journal of Australia*, Vol 40, No 2, Telecom Australia, 1990.

Arger,G. 'Distance Education in the Third World: Critical Analysis of the Promise and Reality, Critical Reflections on Theory and Practice' *Open Learning*, Vol 5, No 2 Longman Group Ltd. Essex, June 1990.

Arger, G & Wakamatsu. 'Experimental International Language Teaching Between Japan and Australia Using 64/128 Kbps Compressed Video Via ISDN, 14th Pacific Telecommunications Conference, Honolulu, January 1992.

Arger, G. 'The Evolution of a Videoconferencing Policy for Australian Distance Education' *Research and Development Division Working Paper*, National Institute of Multimedia Education, Chiba, Japan, January 10 1990.

Arger, G. 'Evaluation of Bit Rates for Distance Education by Videoconferencing' *Research and Development Division Working Paper*, National Institute of Multimedia Education, Chiba, Japan, January 10 1990.

BANGLADESH

Shamsul Haque

THE NATIONAL CONTEXT FOR DISTANCE EDUCATION

The People's Republic of Bangladesh is one of the poorest countries of Asia and the Pacific region. The country's economy is predominantly agrarian. Agriculture accounts for half of GDP and about two-thirds of employment. People are strongly attached to the land. The literacy percentage (for 5 year olds and above), according to the 1981 census, was 23.8%.

The per capita income in Bangladesh is US \$170.00. Education expenditure is 1.7% of GDP. According to a report of the World Bank (Report No.3745-BD), the average cost per student in the country is about 6% of per capita GNP for primary education; 37% for secondary and higher education; 325% for university education; and almost 400% for education in specialized colleges and institutes. In absolute terms, annual average cost per student comes to US \$10.00 for primary education; \$61.00 for secondary and higher education; \$202.00 for vocational education and teacher training; \$536.00 for university education and \$625.00 for education in specialized colleges and institutes.

Bangladesh is a country of 144,000 km with a population of 110.3 million (estimated in mid- 1989). The population density is 766 per km and the growth rate is 2.16% per year. There are 106 males for every 100 females. Crude birth and death rates are 33 and 11.4 respectively. Infant mortality rate is 98 per 1,000. Life expectancy at birth is 56 years.

The national language is Bangla (also called Bengali) and it is spoken by all except a small ethnic minority. Except in a few international schools, the national language is the medium of instruction at all levels of education. The present education system is based mainly on the Western model. A number of old indigenous institutions are, however, still in existence. Primary education is free. The Primary Education (Compulsory) Act was passed in February, 1990. According to the latest cabinet decision, the law is to become effective from January, 1992. There are many non-government (private) institutions of different types and standards. Non-government secondary schools receive up to 70% of their teacher's salary from the government.

Other government institutions are the Glass and Ceramic Institute, College of Leather Technology, College of Textile Technology, Institute of Graphic Arts, Institute of Post-graduate Medicine and Research, Dental College, Nursing College, Music College, Technical Teachers' Training College, and Vocational Teachers' Training College.

Other private institutions include Homeopathic Colleges (37), Ayurvedic Colleges (schools of Hindu medicine) (5), Unani Colleges (schools of Muslim medicine) (9), and Sanskrit (130) and Pali Tols (110) (traditional schools for the study of Sanskrit/Pali language, grammar and rhetoric, etc.)

There are nine universities with Faculties, Departments and Institutes. Each university has its separate Statutes, Ordinances and set of rules. The latest university will start functioning from July, 1991. Of the eight universities, one is the University of Engineering and Technology and another one is the Agriculture University. The universities are autonomous institutions receiving over 90% of their budget allocation through the

University Grants Commission, from the government.

Parallel to the general stream of education, there is a religious stream, known as Madrasah Education. The total number of institutions under this stream - from pre-primary to post-graduate level - is over 80,000. Approximately 50% of these institutions are mosque-based informal schools and their principal curriculum is to teach how to read the holy Quoran (the holy book of the Muslims).

According to the Third Five Year Plan (TFYP), 1985-90, telecommunication facilities in the country are inadequate. There were 7,590 post-offices in the country in mid-1985; of these post-offices 1,518 were in the urban areas and 6,072 in the rural areas comprising 68,000 villages. The number of post-offices has not noticeably increased since then. Their counter services and delivery systems are unsatisfactory. Telephone density was 0.18 per 100 population in 1984/85; it was planned to raise the density to 0.23 per 100 population by 1989/90. This target has more or less been achieved. Telephone services are gradually being extended to an increasing number of new townships and clients. Telegraph and telex services are also insufficient and not satisfactory. There are ninety-four dailies in the country, including thirty-eight in metropolitan Dhaka, with wide variations in their circulation. There are nine radio stations/sub-stations and ten television stations/relay stations in the country. The entire country is covered by radio and television.

There is no stated communication policy for education or distance education. Planning documents have proposed, however, to introduce correspondence courses with extensive use of radio and television to spread primary and mass education. Leaders of the government often reiterate this policy in their public statements. Newspapers carry news, views and occasional lead stories critical of government policies and measures on education. Radio and television have regular education programmes.

HISTORY AND BACKGROUND

An Audio-Visual Education Centre (AVEC) was established by the government within the premises of the Dhaka Teachers' Training College in 1962 with the objectives of teaching through films, and supplying educational equipment and aids to the schools. A separate programme, known as the School Broadcast Programme (SBP), was introduced in 1980 with Japanese funding assistance. Under this SBP, audio control console sets were distributed to 1,070 secondary schools for monitoring curriculum based educational broadcasts over national radio. However, prior to introduction of the new SBP, a similar school broadcast programme was already in existence.

The AVEC and the SBP were housed in the same building and the staff comprised the same set of personnel. Since the objective of both programmes was to improve education, the AVEC and the SBP were combined into one institution in 1983 and named the National Institute of Educational Media and Technology (NIEMT). Later in 1986, consequent upon introduction of distance education in 1985, the organization and management of NIEMT and that of distance education were merged into one institution under the new name of Bangladesh Institute of Distance Education (BIDE). BIDE was responsible for the Bachelor of Education (BEd), the only distance education programme in the country, in addition to the existing non-distance education BEd programme.

Over 90% of the secondary schools are non-government institutions and about 70%

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of their teachers are untrained. The academic standard of the majority of these teachers is rather poor but they have been, and will remain, in the teaching profession. With a view to boosting teachers' morale and giving incentive to their improved professional performance, the pay scales of teachers in approximately 10,000 non-government secondary schools have been raised. However, for obvious reasons it has neither been possible to increase the intake capacity of the existing ten TTCs nor to establish new TTCs for training of the back-log of these untrained teachers. In this context NIEMT, which later became BIDE, introduced a BEd programme through distance education, with a view to improving the professional competence of untrained working secondary school teachers without dislodging them from schools.

The prevailing system of education, with its conventional methods of delivery, proved insufficient to cater to the growing needs of the increasing population. Hence, despite severe resource constraints and other handicaps, the search for alternative systems and non-conventional methods of delivery became necessary. The possibility of either a correspondence course, or a multi-media approach, such as in a distance education open university had been under consideration by planners and administrators for quite some time. Social demands could not be satisfied due to financial constraints and it was not possible to build up necessary institutional facilities quickly. Pressure was mounting for deployment of more trained teachers at the primary and secondary levels, as well as to extend teacher training facilities. It seems that under such an uneasy situation it was decided to do something at any cost. The policy proposals and statements contained in the planning documents were possibly the immediate sources of inspiration for undertaking the BEd distance education programme.

Distance teaching activity was established in the year 1985 when the first batch of students were registered under the programme. The level of the programme was the post-graduate degree of Bachelor of Education, BEd.

Reading and listening materials for distance education - subject-wide modular textbooks and audio cassettes - were developed and distributed among students at the time of registration for each semester. The existing ten TTCs and the NIEAER were selected as regional centres for handling admission formalities, guiding practice teaching, giving tutorial services, organizing summer and winter schools and conducting examinations. A weekly radio programme of thirty minutes and a fortnightly television programme of twenty-six minutes were broadcast for discussion of selected topics and students' queries. A Centre of Counselling and Guidance was set up at BIDE for correspondence with the students. This Centre published a bulletin.

The BEd. distance education programme was introduced as an experimental programme to be contained within the regular budget of BIDE. In 1985-86 fiscal year the Director-General of Secondary and Higher Education, with the approval of the Ministry of Education (MOE), gave an amount of taka 10 lakh (approximately US \$30,000) to BIDE for meeting initial costs of the distance education programme. In the following year a sum of taka 40 lakh (approximately US \$120,000) was given to BIDE from the same source, for the same purpose. Besides, BIDE received a *total* of taka 24 lakh (approximately US \$72,000) as grant from the four Boards of Intermediate and Secondary Education and the National Curriculum and Textbook Board for facilitating the management of distance education. These grants were also approved by the MOE. Each student of BIDE pays a fee of approximately US \$50.00. It had been proposed to raise it to \$100.00 but this was not

implemented. It needs to be mentioned that BIDE's staff salary and maintenance cost were borne by the government from its revenue budget. BIDE inherited the functions of the AVEC and the NIEMT. The distance education programme was added to it without additional financial support at a later stage. This meant that even if BIDE did not administer distance education it would get its staff salary and maintenance cost from the government for the other functions that it had been performing, as usual.

Registration of BEd students for distance education began in 1985 and continued until 1987. The duration of the BEd distance education course was two years, divided into four semesters. All students did not graduate regularly at the end of every two years because the maximum time limit for completing the course was first set at seven years and later reduced to five years. Some students, who broke studies at some point of the two-year programme, are still waiting to complete the course requirements and take the examination at their convenience. They are eligible to do so within the stipulated time limit, which is by June, 1992. The causes of irregular study were family problems, financial difficulty, declining interest in pursuing the programme, and transport problems.

BIDE has a limited staff, limited physical facilities and budgetary constraint. In the absence of a firm government decision for the continuation of the distance education programme to provide the necessary inputs - human, material, and financial - registration for the BEd distance education programme had to be suspended effective in 1988. There is no dearth of interest in the programme. Queries in person, over the telephone and by post regarding the possibility of restarting the programme pour in to BIDE's office almost daily. Attempts are afoot to reopen the programme. Currently a feasibility study for a prospective Open University is nearing completion. It will not be surprising if the government decides to start an Open University by restarting registration for the BEd distance education programme.

THE LEGAL STATUS OF DISTANCE EDUCATION

In the Second Five Year Plan (SFYP), 1980-85, it was proposed that, "Correspondence and evening courses will be introduced for training of primary and secondary teachers; Radio and TV will also be used." (P.XVI-25). The TFYP, 1985-90, proposals included, "Audio-visual aids, viz, charts, posters, globes, maps, etc., will be supplied to primary and secondary schools under the BIDE project. TV sets, video tapes, cassettes, tape recorders, films, slides, film projectors, slide projectors will be supplied to TTCs, NIEAER and NAPE under the BIDE project," and "Correspondence courses in secondary teachers training will be experimented under a pilot project." (p.345).

In the TFYP Education Sector Document of the MOE, the distance education programmes in Australia, the off-campus distance education of Malaysia, the Open University of Thailand and University of the Air of China were cited as innovations for widening access to higher education, serving the educational needs of disadvantaged groups, and offering lower cost per student (p.44). Innovations along these lines were envisaged for higher education of the country. In this context it was proposed that:

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Multi-media approach through the use of educational technology will be introduced. Distance education, extensive use of radio, television, video cassettes, newsletters, etc., will be introduced (p.51).

Provision should be made for the publication of up-to-date textbooks, newsletters and resource materials to help life-long professional growth of teachers and teacher educators (p.52).

Correspondence and evening courses will be introduced at the teacher training institutions for in-service professional development of primary and secondary school teachers (p.52).

Further to these proposals, it was stated that, "The Distance Education Programme for offering in-service BEd degree as initiated by the Rajshahi University will be strengthened" (p.52).

In the TFYP Education Sector Document of the MOE, it was also proposed in the context of Educational Technology, among others, "to provide the 10 Teachers' Training Colleges (TTCs) with small format video cameras, video cassette records and monitor and train their staff to carry on proper experimentation with micro teaching to conduct BEd courses for secondary teachers through in-service distance education methods, to prepare the ground work for the formal start of an Open Education System which may lead to the establishment of an Open University" (p.57).

The University of Rajshahi passed an Ordinance on 28.10.84 offering the Bachelor of Education (BEd) course through the Distance Education System in coordination with the NIEMT (later BIDE), Dhaka, Faculty of Education, University of Rajshahi and Teachers' Training Colleges. The university agreed to award the BEd degree to such candidates as would fulfill the requirements of the programme, as specified by BIDE. The BEd distance education programme was introduced with the approval of the president of the country in June 1985. No law was passed or government executive order issued to give distance education a legal footing.

OVERVIEW OF CURRENT SITUATION

Aims and Objective of Distance Education

Before describing the aims and objectives of distance education it is relevant to look at the aims and programmes of BIDE, the institution that administers the distance education programme. The stated aims of BIDE are:

- a. To improve the quality of primary and secondary teachers through the use of modern electronic media and educational materials to be carried by post;
- b. To improve the quality of classroom teaching with the support of Radiovision broadcast and other recorded materials for those schools that received the audio control sets;
- c. To assist in teacher training programmes conducted by the TTCs, NIEAER and NAPE; and
- d. To repair and maintain the equipment supplied to secondary schools under the SBP.

The programmes of BIDE are:

- a. To prepare and show video programmes for improvement of primary and secondary education and teacher training;
- b. To prepare audio programmes to assist teachers of secondary schools and teacher trainers;
- c. To broadcast curriculum based radio programmes for enrichment of classroom teaching in the secondary schools under the SBP and improvement of primary and mass education;
- d. To prepare, print and distribute educational aids, such as, maps and charts, for improvement of teaching in primary and secondary schools and booklets for guidance of radio programmes;
- e. To repair and maintain the audio control console sets distributed to secondary schools and other equipment for recording audio and video programmes;
- f. To train personnel for preparation and classroom use of educational aids and maintenance and petty repairs of audio control console sets; and,
- g. To conduct BEd programmes through distance education.

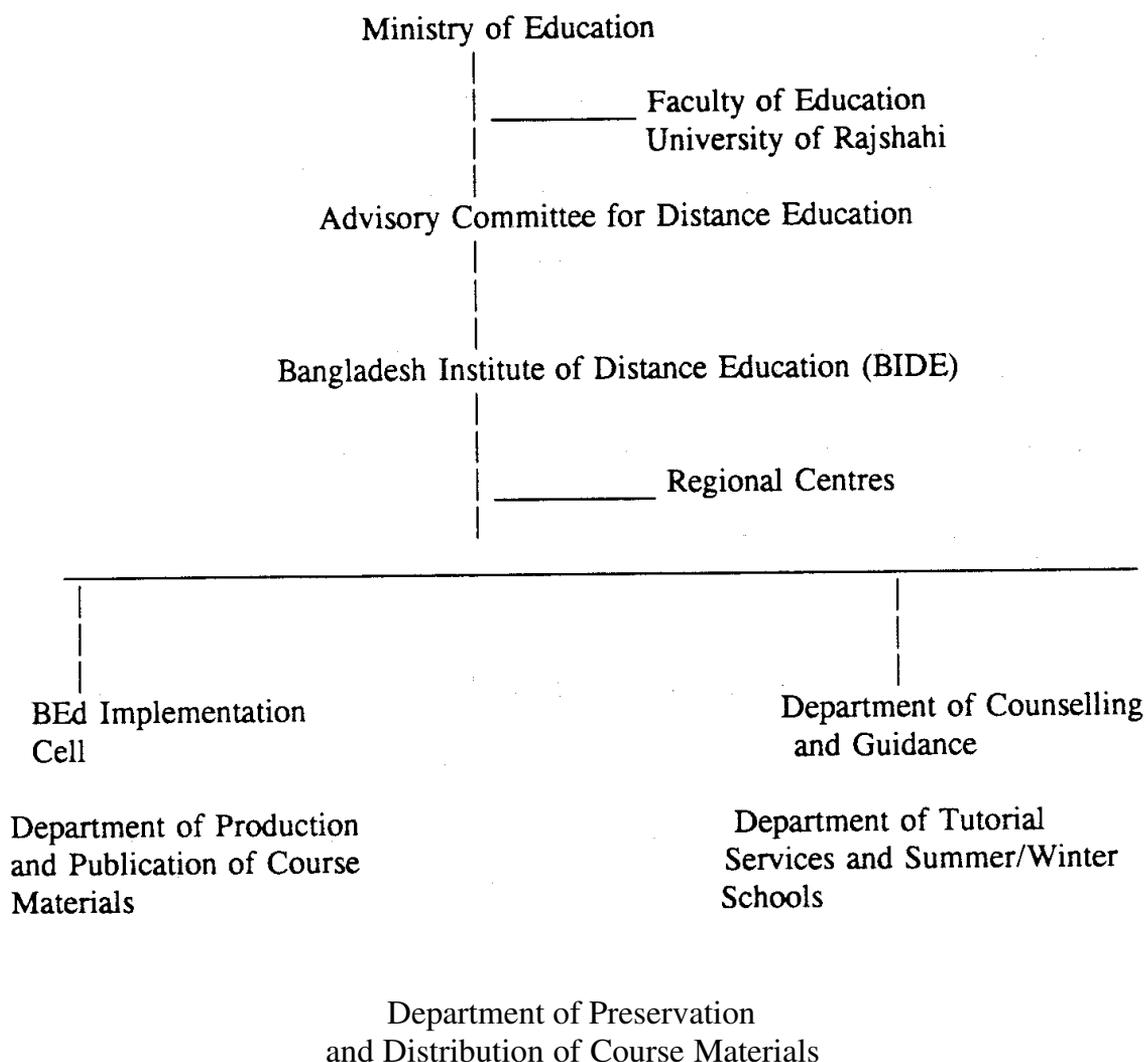
The aims and objectives of distance education, as gathered from BIDE's literature, activities and an evaluation report of BIDE's performance are:

- a. To enable untrained secondary teachers to receive professional training at low cost by staying where they are, through (i) correspondence materials, (ii) audio cassettes, (iii) radio and television programmes, (iv) tutorial services, (v) demonstration teaching, and (vi) organization of winter and summer schools;
- b. To improve professional competence of untrained working secondary teachers;
- c. To improve the quality of teaching-learning in secondary schools by increasing their stock of trained teachers;
- d. To tone up the general level of secondary education; and,
- e. To reduce pressure from TTCs.

Control, Organizational and Management Structure of Distance Education

The distance education programme in the country is a national programme and the structure of governing bodies for distance education is given below:

TABLE 1: The Structure of Distance Education Governing Bodies



Currently BIDE has a staff strength of fifty-seven, including the Director, the Deputy Director and three Assistant Directors with technical as well as non-technical support staff. The Director of BIDE is, and always has been, an academic administrative officer. The post of the Director and that of the Deputy Director were not filled by direct recruitment, which is generally true for the recruitment of other staff members. The post of the Director is filled by a person drawn from the Senior Education Service, either from a general college or a TTC. The Deputy Director is also drawn from the Education Service. Some staff members came from national radio when the distance education programme was introduced. BIDE is a non-teaching institution. It is more like a service department of the MOE which administers the BEd. distance education programme.

Each of the five wings of BIDE, namely the BEd Implementation Cell; the Department of Production and Publication of Course Materials; the Department of Preservation and Distribution of Course Materials; the Department of Tutorial Services and Summer and Winter Schools; and the Department of Counselling and Guidance, is headed by a senior member of staff assisted by

others. The Director is the chief executive and has the overall responsibility of the institute and its programmes. The Director, the Deputy Directors, the Assistant Directors and heads of the five wings plan their activities and implement those with the approval of the Advisory Committee in cooperation with the Regional Centres.

The academic standards of the BEd programme through distance education were set at the time of the introduction of the programme in consultation with experienced professionals, external experts and academics, including TTC principals, NIEAER specialists and IER teacher educators. BIDE neither determines nor sets the academic standards by itself.

There is no apparent academic and administrative relationship between BIDE which offers the BEd distance education programme and the ten TTCs and the IER which offer non-distance education teacher training programmes. However, the curriculum of BIDE is on a par with that of TTCs. The requirements for the BEd degree in distance education and non-distance education are approximately the same. The distance education programme was designed in conformity with the non-distance education programme. Both programmes have almost the same set of courses. The compulsory subjects for the BEd distance education programme are Principles of Education, History of Education, Educational Psychology, Evaluation, Counselling and Guidance, and Education and National Development.

Each student chooses any two of Mathematics, Science, Bengali, English, Geography, and Social Science (Economics, Civics and History).

A student may also choose the only optional subject - Educational Administration.

Candidates for the BEd degree through distance education take examinations in compulsory subjects (five) of 100 marks each, elective subjects (two) of 100 marks each, optional subject (if chosen) of 100 marks, and practical works of 300 marks.

Practical works include preparation of lesson plans and teaching aids, teaching practice, internal assessment and an oral examination.

The successful candidates from both programmes are, in principle, considered equivalent. The differences between distance education and non-distance education programmes lie in the systems of administration and management, the methods of delivery and in the examination procedures. One such difference is that in the conventional system of examination, the emphasis is on long essay questions whereas in the non-conventional system the ratio of objective and essay questions was first set at 80:20 and later revised to 50:50.

Financing Distance Education

Distance education is not separately or independently financed. The sources and forms of financial support for distance education have been described above.

An accurate comparison between the budgets of the institution offering distance education and those offering non-distance education in secondary teacher training is not possible because of dissimilarities in the characteristics of the institutions, their functions and the lack of itemized expenditures. However, a crude comparison may be attempted.

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TABLE 2: Budgetary Allocations for BIDE and TTCs

	Government Revenue Expenditure			
	1985-6	1986-7	1987-8	TOTAL
Distance Education Institution (BIDE)	207,147*	143,323	161,059	511,529
Non-Distance Education Institutions (Ten TTC's)	430,000	450,000	-	880,000

* Development Expenditure: From the following year it came under Revenue Expenditure.

Source: a. Bangladesh Educational Statistics, 1990.

b. BIDE Records.

Government budget allocation for BIDE over three years, 1985-87, totalled a sum of US \$511,529. If it is arbitrarily assumed that one-half of BIDE's staff time and facilities were devoted to distance education, it has to be presumed that one half of the total amount, or \$225,764 has been spent for distance education. BIDE received an amount equivalent to \$222,000 as grants from other sources and approximately \$514,150 as fees from students. The total amount comes to \$991,914. The number of students registered over these years was 10,283. By simple arithmetic the average annual cost per BIDE student comes to \$96. On the other hand, ten TTCs received an amount equal to \$13,70,000 over the same period and their total number of students over those years was 10,748. In this case the average annual cost per TTC student comes to \$127 per student. Clearly, the cost for distance education was lower than that for non-distance education.

BIDE is a non-teaching institution and it has other functions besides administering BEd distance education, whereas, TTCs are purely teaching institutions. BIDE students pay a fee but TTC students do not have to pay any fee. Moreover, each TTC student receives a government stipend irrespective of whether or not he/she draws salary from school. Generally, non-government secondary school teachers come for training in the TTCs, either on leave, with or without pay, or on deputation with pay. Some fresh graduates, not in-service, do however study in TTCs and receive only a stipend. Government school teachers receive their pay from schools and are not entitled to a stipend. Traditionally, teacher education has been substantially subsidized. If the financial benefits of free tuition and a stipend and/or salary are taken into account, the average annual cost per TTC student would be much higher than what it appears to be. If only the fee of approximately \$50 as paid by each BIDE student, is added to the cost of approximately \$127 per TTC student, the average cost per TTC student rises to \$177. The World Bank Report (p.1) calculated this to be \$202. Further, if BIDE's programme had continued beyond 1987, the average cost per student would have been less than \$96. It needs to be said again that this comparison is by no means an exact or accurate comparison.

Geographical Coverage of the Provision of Distance Education

The entire country is covered by the BEd distance education programme. BIDE has eleven Regional Centres: TTC Chittagong; TTC Comilla; TTC Dhaka; TTC Feni; TTC Jessore; TTC

Khulna; TTC Mymensingh for men; TTC Mymensingh for women; TTC Rajshahi; TTC Rangpur; and NIEAER, Dhaka. NIEAER does not offer a degree awarding teacher training programme. It is an institution for conducting short in-service training in administration and management. NIEAER has a qualified professional staff.

The country is divided into four administrative divisions and sixty-four districts. The regional centres are spread over all four divisions. Students registered under the programme came from all districts.

Instructional System

The major methods of delivery utilized for the BEd distance education programme are for each student to get the prescribed textbooks and three audio cassettes every semester. Thus, in four semesters, all students receive all textbooks and twelve audio cassettes. The textbooks are written in Bangla, except the one on English language teaching, which is written in English. The cassettes are recorded in Bangla, again except the one on English language teaching. In the regional centres there is one scheduled day long face-to-face contact meeting of students with the tutors every two weeks. In these meetings students' queries and problems are discussed and attempts made to resolve them. Different tutors, in separate sessions, meet the students and discuss problem topics of their respective subjects.

There is a weekly thirty-minute radio programme and a fortnightly twenty-six minute television programme. Demonstration lessons are presented through these programmes. Queries of a general nature concerning a large number of students are also discussed in these programmes. A bulletin, published quarterly, is sent to every student regularly by post. That is, over the scheduled time of two years a student receives eight volumes of The Bulletin. The last issue of the Bulletin was published in December, 1989. This means that the Bulletin was published up to two years after registration of students in 1987. Individual questions and problems raised by students in their letters written to BIDE are also answered by post.

No research activity on the distance education programme was ever undertaken.

Enrolment in Distance Education

The last batch of students were registered in 1987 and registration has remained suspended since then. Enrollment in BEd distance education and BEd non-distance education (in ten TTCs combined), according to yearly registration, is shown in Table 3.

TABLE 3: Enrollment in BEd Distance Education and Non-distance Education

YEAR	DISTANCE EDUCATION	NON-DISTANCE EDUCATION
1985	3,211	3,500
1986	3,287	3,624
1987	3,783	3,624
Total	10,281	

Source: a. BIDE Records

b. Bangladesh Educational Statistics, 1990

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The academic year is from July to June. BIDE students are admitted for two years and TTC students are admitted for one year. The above enrollment figures show only the regular students who are registered each year and not the ones who did not complete the course within the specified two year duration.

The number of graduates per year in the distance education programme is presented in table 4.

TABLE 4: Number of Graduates per Year in Distance Education

YEAR	GRADUATES								TOTAL
	1987		1988		1989		1990		
	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	
1985	1,681	509*	146*	66*	49*	26*	-	-	2,477
1986	-	-	1,262	647	204	-	52*	-	2,165
1987	-	-	-	-	1,424	598*	254*	-	2,276
Total	1,681	509	1,408	713	1,677	624	276	-	6,918

** Irregular students*

Source: BIDE Records

The number of students registered over three years has been shown earlier. When these figures are contrasted with the figures above, it appears that altogether there are some 3,363 non-completers. Only after expiration of the time limit in June 1992 will it be possible to take an account of the attrition rate. The accumulated number of graduates in the BEd distance education programme, as of 1990, is 6,918.

International Affiliation and Cooperation

BIDE, the distance teaching institution, is not a member of any national, regional or international organization. No foreign aid/grant/support for distance education was ever sought or received in the past. There is none in the pipeline either.

Growth and Expansion

The distance education programme operated for only three years. There are some irregular students yet to complete the course and seek the degree. Registration in the programme has remained suspended with effect from 1988. The question of growth and expansion, therefore, does not arise. The only possibility, and this is merely speculation, is that if and when it is decided to start on Open University, the distance education programme is likely to be revived.

Problems and Issues

BIDE inherited the functions of the AVEC, NIEMT and SBP, such as school visits, production

and distribution of audio and video programmes as well as maps and charts, the organization of broadcast programmes, as well as repair and maintenance of equipment supplied to schools. Over and above these functions, BIDE took upon itself the responsibility of administering the distance education programme. Naturally, BIDE's staff time and utilization of facilities were divided between two sets of activities. If it had not been so, distance education would have had a greater chance of becoming more efficient and effective.

BIDE was established neither as an exclusive distance teaching or teacher training institution. It did not have a core staff of academics proficient in teacher training and related research techniques. This limitation Compelled BIDE to depend greatly upon the staff of the regional centres. The centres also made compromises with the limitations of BIDE. Had it not been so, the distance education programme could prove itself more efficient and effective.

Organization and management of teaching practice was weak and the time for supervised teaching practice was short. Students did not regularly attend the regional centres whilst some students and tutors did not take the task as seriously as was expected. Micro-teaching, if practiced at all, was no more than a make-believe game. Obviously, this very important aspect of the teacher training programme was partially neglected. If these lapses had been prevented, the distance education programme could have proved itself quite efficient and effective.

The distance education programme was well-designed and cost-effective. BIDE made rather a hasty start of distance education and got the programme going without perhaps examining all the pros and cons. Maybe a little excess of enthusiasm was behind the efforts. Even then, strengthening of the programme content, revision of the textbooks and adoption of a strategy for instilling pedagogical skills in the trainees could have made the programme much more efficient and effective if it had continued.

Family obligations of the students, limitations of the public transport services and also inadequacy of the telecommunication facilities were some of the factors that limited students' contact with their tutors in the regional centres. Unsupervised teaching practice in the classrooms of the students' respective schools did not offer the opportunity to evaluate students' gradual progress and development. There was some laxity in the process. If all these factors had been controlled, efficiency and effectiveness of the distance education programme would have been at a much higher level.

The general conclusions are that the distance education programme was a breakthrough in the traditional system and conventional methods of delivery of an educational package that was, and still is, in demand. The programme suffered from certain unanticipated limitations. Some people felt that the products of the programme were not equal in quality to those of the conventional programme. Given time, money, material and moral support, the distance education programme could have overcome many of its shortcomings and would have been able to compete with the conventional programme in effectiveness and quality.

The major factors hindering implementation of the distance education programme may be summarized as lack of a firm government decision to implement the programme; absence of a law/government executive order that could give the distance education programme a stable footing; change of government and the top echelon of planners/administrators/executives; lack of adequate financial/material support to the programme, and resistance, mostly psychological, from the orthodox old-timers who show reluctance to any change.

The general conclusions in this regard are that the distance education programme began as a prelude to an Open University, to which the government has not yet made a commitment. The inherent weakness with which the programme started was that there was no law or

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government executive order behind the programme. Even during its life time of three years the key planners and the top executives did not support the programme and move for a law or an executive government order. One criticism is that the advocates of distance education were a little impatient to introduce the programme and thus overlooked this vital requirement to the detriment of the programme. Another criticism is that the programme was launched without sufficient preparation. Both criticisms point to the same weakness. No doubt there are competing demands on the attention and resources of the government and the decision making process is complicated.

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CHINA, PEOPLE'S REPUBLIC

Zang Jinping and Ding Xin
(Translated by Zang Jinping)

THE NATIONAL CONTEXT FOR DISTANCE EDUCATION

Distance education in China has two distinctly different strands, one is the audio-visual teaching programmes offered by Radio and TV Universities, the other is correspondence courses provided by dual mode institutions.

Correspondence education rapidly developed in the 1950's. The Chinese government and Central Committee of CPC attach importance to it. The State Education Commission has issued a series of documents on dual mode institutions offering correspondence education. As of 1990, there were 443 institutions offering correspondence education, consisting of about 286 specialties; 147 in engineering, 38 in agriculture and forestry, 28 in finance and economics, 27 in teacher training, 18 in liberal arts, 16 in sciences, and 12 in other subjects. These specialties are at two different levels: undergraduate specialties where the period of schooling is five years; and junior college specialties where the period of schooling is three to three and a half years.

From 1980 to 1990, there were 660,000 correspondence graduates. In 1990, the number of registered correspondence students was 547,000 (147,000 students of undergraduate courses, 400,000 students of junior college courses). The target students mainly are in-service adults with secondary education certificates. They are admitted by passing the national entrance examination.

Corresponding materials include text books, guide books, and reference books. Correspondence students receive face-to-face tutoring in study centers located in local dual mode institutions.

In this paper, the Institute of Correspondence Education and Further Education of Tongji University, and East China Normal University Adult Education College are described as representative of distance education institutions in China.

China's radio and television universities (TVUs) were initiated in the early 1960's, closed down for ten years, then resumed in the 1970's. China's TVU system was formed at the beginning of the 1980's. It plays an important role in the Chinese higher educational system by providing a large number of people with access to higher education through distance learning. The academic standards of TVUs have been positively acknowledged by conventional institutions. As of 1990, the TVU system had enrolled 1.83 million students and 1.25 million students had graduated.

The TVU system has offered 294 specialties at the junior college level. It has helped to increase the proportion of junior college students over age twenty-five, and it has helped to improve the curricular arrangement in China's higher education by enrolling thousands of students majoring in the humanities and economics and management. The TVU system is cost effective and trains more people at lower cost in a shorter period of time than on-campus institutions.

The strategy of developing China's TVUs is to increase educational reform, to perfect

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the system, to improve teaching quality, to be more cost effective, to develop junior college courses in a stable way and at the same time to develop continuing education at the post-graduate level and vocational education at the primary and secondary levels. The TVU system must adapt and improve according to the needs of social economic development.

HISTORY AND BACKGROUND

At the beginning of the founding of the People's Republic of China, the government saw institutions offering correspondence education as an important method to raise official's and worker's theoretical, cultural and vocational level, and turn out the necessary specialized personnel. In the second half of 1951, the Central Committee of CPC and the Ministry of Education approved for the People's University to set up a correspondence education department. On February 7, 1953 the Correspondence Education Department of the People's University offered ten specialties in finance and economics, and enrolled 2,700 students in junior college courses. In 1954, The Ministry of Education pointed out that correspondence education was part of the regular education system in the circular entitled Report of Inspecting the Correspondence Education of Northeast Normal University. This circular established the status of correspondence education in all educational institutions. Until 1955, there were seven institutions which offered correspondence courses in Finance and Economics, as well as teacher training. The number of registered correspondence students was 4,390. In February 1955, there were 1,600 first-batch correspondence graduates of junior college courses.

In 1956, Xiamen University set up an overseas correspondence department mainly for overseas Chinese. From 1956 to 1957, the Ministry of College-Level Education and Ministry of Education issued a series of documents stipulating the rules and regulations surrounding the principle, task, aims, specialties offered, term of instruction, target students, entrance examination, teaching requests, period of schooling, and management system for correspondence education. These documents laid the groundwork for the development and management of correspondence education in institutions.

In 1957, there were fifty-eight institutions offering correspondence courses in Engineering Agriculture, Forestry, Teacher Training, Liberal Arts, Sciences, Finance and Economics, as well as Political Law. The number of registered correspondence students was 35,000.

In 1961, a draft of Temporary Working Rules and Regulations of Universities and Colleges affiliated to Ministry of Education by the Central Committee of CPC, stipulated that institutions must run correspondence education actively. In 1962, there were 122 institutions running correspondence education and 189,000 correspondence students on the roll. During that time, some institutions enrolled farmers who had secondary schooling certificates and some young school leavers in the city.

In 1963, the Ministry of Education established a trial correspondence institute, Beijing Correspondence Institute, to explore correspondence teaching modes. In 1966, it was closed down.

In January 1963, The Notice Concerning to Strengthen Correspondence Educational Working of Full-Time Universities and Colleges and Secondary Specialized Schools, and Evening University Educational Working, issued by the Ministry of Education, stated that

night school were gaining importance. They must look to both urban and rural areas, not only to enroll the workers and staff members of the enterprises, officials and teachers, but also the young school leavers in the cities. This, every department and every region was asked to develop correspondence education and night school both actively and steadily in accordance with the policy Readjustment, Consolidation, Filling out and Raising Standards, and the rules Overall Planning, Overall Arrangement, Division of Work as well as Coordination of Effort, Strengthen Leadership, and in accordance with needs and possibilities.

At the same time, the Ministry of Education made stipulations for a correspondence education plan for institutions, which included examination and approval procedures, target students, educational aims, course design, teaching material construction authorized strength, funds and expenditure, establishment of the correspondence tutorial centers, as well as strengthening the leadership and management.

In 1965, the total number of institutions offering correspondence education was 123. About 189,000 correspondence students were on the roll. There were 74,000 correspondence freshmen and 16,000 correspondence graduates. Until 1965, there had been more than ten batches of correspondence graduates, totaling 80,000.

Because of the Cultural Revolution, correspondence education was not offered from 1966 to 1973. After 1973, some institutions offered a few correspondence courses for teachers and young school leavers who went to the rural areas.

In order to promote resuming and developing correspondence education, in April 1980, the Ministry of Education held a forum for institutions which ran correspondence education and evening university education. In this forum, the importance and urgency of conventional institutions running correspondence education was made clear. After that forum, the Ministry of Education submitted *The Suggestion on Developing Vigorously Correspondence Education and Evening University Education in Conventional Institutions* to the State Council. In September 1980, the State Council authorized the dispatch of this document to each provincial, autonomous, regional, municipal government and each ministry for implementation.

The State Council pointed out that in addition to organizing full-time university education, institutions should actively run correspondence education and evening university education in accordance with their own conditions. Practice has proven that conventional institutions running correspondence education and evening university is a cost effective and important way to turn out specialized personnel. It is also an important measure to raise the whole nation's cultural and scientific level. It should be the components of higher education undertakings, therefore institutions should tap the potentialities of teachers and equipment, and run correspondence education and evening university actively.

Until 1981, there were 177 institutions offering correspondence courses, forming 102 specialties with 189,000 registered students.

In April and December 1981, the Ministry of Education held two conferences on correspondence teaching in technical colleges to discuss and stipulate teaching plans of undergraduate correspondence courses and the syllabus of foundational courses as well as technical basic courses. They proposed the revision of twenty six correspondence teaching syllabuses of twenty courses including English, Advanced Mathematics, Ordinary Physics, Ordinary Chemistry, Inorganic Chemistry, Theoretical Mechanics, Mechanics of Material, Mechanical Theory, Machine Components, Electrical Engineering, and Electronic Technical

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Basis.

From 1979 to 1985, the Ministry of Education issued a series of documents, stipulating the examination and approval program of correspondence education for institutions. They covered the management, developing scales, teaching plans, compiling and publishing correspondence teaching materials, the evaluation of professional titles for full-time faculty, the enrollment process, tuition fees, and conferring diplomas. In March 1983, the Ministry of Education issued *A Few Ideas on Vouchsafing Universities and Colleges the Right to Confer Bachelor Degrees on an Experimental Basis to the Graduates of Regular Correspondence and Evening University Courses*. This was an important event in the history of Chinese adult education. On June 18, 1985, the State Education Commission was established and the Ministry of Education was disbanded. In 1986, the State Education Commission decided to conduct unified enrollment and common entrance examinations to adult degree education.

LEGAL STATUS

In June 1986, the State Education Commission issued *Provisional Regulations of Correspondence Education of Conventional Institutions*. It was the first comprehensive legal document pertaining to correspondence educational history of China and it has promoted correspondence education by formalizing, standardizing, and systematizing it.

Until 1986, there were 371 institutions offering correspondence education, comprising 35% of the total number of educational institutions, offering 286 specialties: 147 in engineering, thirty eight in agriculture and forestry, twenty eight in finance and economics, twenty seven in teacher training, eighteen in liberal arts, sixteen in sciences, and twelve in other subjects, being 35% of the total number of specialties offered by regular full-time higher education. There were 415,000 registered correspondence students including 139,000 correspondence undergraduates and 276,000 correspondence students of junior college courses. In November 1988, the Committee of Academic Degree of the State Council issued *Provisional Regulations on Conferring Bachelor Degree to Adult Graduates of Undergraduate Correspondence Courses*.

In 1990, there were 443 conventional institutions running correspondence education, or 41% of the total number of educational institutions (1075). The number of registered correspondence students was 547,000 (147,000 correspondence students of undergraduate courses, 400,000 correspondence students of junior college courses). The number of registered non-distance institutions undergraduates amounted to 2,067,000. The ratio of correspondence students to full-time students was 1 to 3.8.

Among these registered correspondence students, there were 194,000 students of teacher training courses, 122,000 students of engineering courses, and 119,000 students of finance and economics courses. The enrollment number amounted to 156,000, with 123,000 graduates. From 1980 to 1990, there were 660,000 correspondence graduates.

Recently, some institutions set up correspondence education research divisions, while some universities united to establish organizations which researched distance learning in order to sum up the experiences, improve the quality, and promote the development of correspondence education. They have published theoretical research periodicals to communicate the information, exchange their experiences, and hold theoretical discussions.

The theoretical research promotes the development of practice in correspondence education.

OVERVIEW OF CURRENT SITUATION

The State Education Commission set up a special department which is responsible for correspondence education. The educational administrative Departments of Ministries and Commissions came under the State Council. Provinces, autonomous regions, municipalities and special cities set up their own management organizations. These organizations are responsible for the overall planning, methods of student evaluation and examination, daily operations of correspondence education, evaluation of teaching quality, and management.

Institutions organize correspondence education in accordance with their own environment. They are responsible for teaching and administrative management. A number of correspondence study centers, which are responsible for tuition and administrative management, have been established.

Institutions that offer correspondence education must undergo the procedures of application, examination and approval. They must meet the following conditions. First, the number of registered full-time students must be more than 2,000. The offered specialties must have at least two batches of full-time graduates. There must be the appropriate management organization, with academic and administrative management staff. The management rules have been stipulated. There must be qualified full and part time teachers suitable for running correspondence education. Finally, there must be suitable correspondence teaching materials, self-learning guide books and reference materials.

If institutions want to run correspondence education, they must apply to the proper authorities, namely the education administrative departments of Ministries, provinces, autonomous regions, municipalities, or special cities. The universities and colleges affiliated with the state Education Commission must get their approval to run correspondence education. Institutions offering correspondence education can decide to increase specialties which have been offered for full-time students, but they must report it to the department responsible for the university or college.

When applying to offer new specialties which are not provided for full-time students, these new specialties must be in urgent need and the universities and colleges have the capacity to meet those needs. Correspondence courses must follow the established teaching plans and outlines of regular courses. Strict examination rules and regulations must be drawn up to guarantee that the quality of the correspondence courses will be equal to that of the oncampus courses. Correspondence teaching activities include self-learning, face-to-face instruction, tuition, assignments, laboratory courses, field-work, testing, course design, a graduation project and oral defense of the graduation thesis or examination. The time spent for instruction, laboratory courses and field-work should be 30% of the general teaching hours of the equivalent regular courses. Correspondence teaching materials include textbook, guide book, and reference book. Recently a few audio-visual teaching materials have come to be used

The ratio of the number of the staff to correspondence students should be between 1:20 and 1:50. The correspondence teachers' posts should be stable so as to accumulate teaching experience to improve teaching quality. The target students of correspondence courses are in-service adults with secondary education certificates; fresh secondary school

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graduates; and young school leavers. They are admitted by passing a national entrance examination. Some continuing education programmes enroll in-service adults with higher education diplomas. In-service correspondence students are allowed to request leave to take part in the teaching activities according to the teaching plans. Their salary is paid by their units. When they participate in intensive teaching activities, their transportation fees and accommodation fees are paid by their units. The correspondence graduates' status is the same as the full-time graduates'. Correspondence education funds come from government grants, the tuition fees paid by the correspondence students and their units.

In China, there are many institutions offering correspondence education. It is impossible to describe them all. In this paper, the Institution of Correspondence Education and Further Education of Tongji University and East China Normal University Adult Education College are described as representative.

The Institute of Correspondence Education and Further Education of Tongji University

In 1956 Tongji University began to run correspondence higher education. In 1984 the Correspondence Education Institute was officially established and in 1989 changed its name to The Institute of Correspondence Education and Further Education of Tongji University.

Within the institute there is a President and Vice-President who are responsible for the overall work. The Administrative Secretary Section is in charge of recruiting new students, financial affairs, and administrative secretary work. The routine work is conducted by the General Office of the institute, comprised of five sections: The Correspondence Educational Administration Section, in charge of correspondence teaching management and the correspondence study centers; The Evening University and Further Education Section, in charge of the teaching management of the evening university and various post-college education; The Post Training Section, in charge of various post-training, the special professional secondary school and the teaching management of the evening school; and The Teaching Material and Teaching Research Section, in charge of the supply of audio-visual materials, organizing and carrying out adult education research work, publishing the magazines and newspaper of Tongji Adult Education and Information Exchange.

The magazine *Tongji Correspondence Teaching* and the newspaper *Students' Friend* contain various documents about correspondence education and analysis of various problems in teaching, as well as abundant feedback information from the students. The reports about students' studies and work are published to encourage them to study hard.

There are eight correspondence teaching sections: Mathematics, Physics, Foreign Language, Drafting, Electrotechnics, Mechanics, Structure, and Architecture. There are specialty directors in the concerned departments of the university so as to strengthen the contacts with the various specialties of the university and get advice in teaching activities. Generally the specialty directors of the institute are the Vice Directors of the concerned department of the university.

At present the institute offers both degree courses and non-degree courses. Undergraduate degrees, which take five and one-half years to complete, can be obtained in the seven specialties of Industrial and Civil Building Engineering, Water Supply and Sewerage Engineering, Heating Ventilation and Air-conditioning, Road Engineering, Engineering Surveying, Industrial Electrical Automation, and Environmental Engineering.

The junior college course (three and one-half years) offers the two specialties of Industrial and Civil Building Engineering, and City and Town Construction. Second degree courses offer Industrial Management, and Building Engineering Management. Non-degree courses include individual courses and combination courses for professional certificates, post training and continuing education after college training.

The target students of the institute are in-service adults, comprising 80-90% of the correspondence students, and fresh secondary school graduates. Generally the adult students have earned the diploma of a secondary specialized school or secondary technical school before they enroll. They must also pass the entrance examination. The students must be selected from the staff and workers of units. In the selection of students and in their employment after graduation, the principle of learning in conjunction with work is strictly maintained. That is, the specialty a student chooses must be related to the kind of job he or she is doing in his or her unit. If a unit hopes to recommend a worker to undertake a specialty which is irrelevant to the job, it must ensure that the student will be assigned to a new job relevant to what he or she learns after graduation, otherwise the person recommended will not be admitted. Their learning activities must be carried out in their spare-time and they must continue to work at their units after graduating. The students' learning activities do not run counter to their work. Instead, they can help to solve problems in work, enhance working effectiveness, and promote the development of production.

The contract signed stipulates that the relevant unit must create favorable conditions for the students to engage in their studies. For example, the units must help to assure that five evenings and one working day a week will be spent in correspondence study. Every term, the units must allow their correspondence students to take leave twice (each lasts two to four weeks) to go to Tongji University, or study centers, to take part in teaching activities, such as lesson review, question/answer sessions, experiments, and examinations. Students continue to receive full wages while on leave. The units must provide travelling and accommodation money for these activities. Specific personnel within the units are assigned to administrate and supervise the learning of the students.

It has been defined in the Regulation of Grade Given To Correspondence Students in Tongji University that students must submit two-thirds of the assignments and periodical test exercises to the Correspondence Institute by the end of the term before being allowed to take the final examination for the course. It has also defined that teachers should record the grades of assigned experiments, projects, and exercises. Students are considered to have finished the curriculum only when grades meet the requirements, and earn the diploma only after completing the curriculum of each term and passing the oral defense. The students choose between two formal examination papers, but may be excused from the exam if they submit an independent project judged to be of sufficiently high quality.

Every year 900 students are admitted. As of 1990, the total enrollment figure was 9,000, of which 4,300 students in fourteen batches had graduated. About 80% of those enrolled graduated, and 75 % of graduates were awarded the bachelor degree. In 1990, 3600 students were on the roll.

Students under the age of twenty-four comprise 90%, with 10% over age twenty-five. Ten per cent of students are female. The correspondence students come from eight provinces (Jiangsu, Anhui, Shandong, Jiangxi, Fujian, Zhejiang, Liaoning, Jilin) and one city (Shanghai). In order to make it convenient for students to attend classes, the institute set up eleven correspondence study centers in relevant local institutions.

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The main tasks of the institute, in conjunction with the study centers, are the development of plans and programmes, the compilation of teaching materials, the organizing of activities, and managing enrollment and examinations, as well as arranging for the marking of student assignments and the training of teachers who work in various correspondence study centers. All of these tasks are specifically stipulated in the Attentions for Routine Work of Staff Member of Correspondence Institute of Tongji University and Provisional Regulation of Correspondence Station Supervised by Tongji University.

The faculty compile teaching materials suitable for student learning. Some teaching materials are adopted from the parent university, and they are supplemented with instruction books compiled by the faculty. There are three principles observed in writing the textbooks. The book should take care to integrate theory with practice on the basis of ensuring the systematization and completeness of the basic theory of the curriculum. The book should spare no space to clearly explain the key and difficult points. The book should be enlightening, be easily comprehensible for self-learning, and each chapter should include instructions of study methods, as well as suitable examples, exercises, and self-administered tests.

There are eighty full-time teachers and eighty part-time teachers and fifty administrative staff. The ratio of correspondence teachers to students is about 1:25. Some teaching research groups have been formed. A Professor or an Associate Professor is appointed to be responsible for each teaching research group. Every study center has a group of part-time teachers. Regulation for Routine Work of Correspondence Teachers in Tongji University and Suggestions of Trying to Carry Out the Regulation of Amount of Work Required for Correspondence Teachers in Tongji University have been stipulated. These documents detail the responsibilities of the teachers and define the requirements of quality and quantity of the teaching work as well as teaching methodology research.

Since its founding, the Correspondence Institute of Tongji University has won great fame. According to a survey of 261 engineering graduates, quite a number of them oversee important projects at the state level, such as the Baoshan Iron and Steel Complex, the Shanghai Petrochemical Complex, and others.

Generally, State Education Commission grants (equalling) US \$68,000, and Shanghai Higher Education Bureau grants (equalling) US \$20,000 are given to the Institute every year. The institute collects tuition fees equalling \$240,000 to \$260,000 paid by the students' units every year (equalling \$70 for each Shanghai correspondence student's tuition fee and \$90 for each out-of-Shanghai student's tuition every year). The total number of funds is about equal to \$360,000. Compared to on-campus institutions, distance education is cost-effective. It requires only 25-30 % of the cost required for one full-time student in on-campus institutions .

The institute has set up a good relationship with the German distance education Hagen University. Visits and information are exchanged between the two institutes.

With the development of economic construction, the Institute of Correspondence Education and Further Education of Tongji University will further improve teaching quality, arrange teaching at multiple educational levels, establish the kind of management system which combines structure with flexibility, and develop and progress in a steady way.

East China Normal University Adult Education College

Correspondence education of the East China Normal University started in 1956. In accordance with arrangements made by the Ministry of College Level Education, a correspondence education department was set up on the campus, offering seven specialties, Chinese Language and Literature, History, Mathematics, Physics, Chemistry, Biology and Geography. The main purpose was training In-service secondary school teachers. The correspondence students were scattered in Jiangsu and Zhejiang provinces, as well as Shanghai. Some study centers were established in these places. In 1959, the correspondence education department began to enroll students from Anhui, Shandong, and Fujian provinces besides Jiangsu and Zhejiang provinces and Shanghai. In 1966, because of The Cultural Revolution, the correspondence education department was closed. In 1978, the correspondence education department was restored and rapidly developed on the basis of the experience gained in the 1950's. In December 1986, East China Normal University Adult Education College was established by the State Education Commission.

The college is composed of a President's Office, an Administrative Division, the Correspondence Education Department, Evening University Education Department, Self-Instruction Examination Division, a Training Division, Divisions of Chinese Language, Foreign Language, Physics, Mathematics, and Adult Higher Education, the Research in Adult Higher Education Editorial Department, Electrical Audio-Visual Education Division, a Computer Laboratory, and an Information Room. The Correspondence Education Department is responsible for running correspondence education and offering vocational training courses, post-university continuing education courses and thirteen specialties, some of which lead to a university graduation diploma and some lead to a junior college graduation diploma.

The five-year undergraduate specialties are Political Education, Political Education and History, Chinese Language and Literature, Library and Information Science, Mathematics, Physics, Geography, and Biology. The three-year specialties leading to a junior college graduation diploma are Political Education and History, Chinese Language, History, Mathematics, Physics, Geography, and Physical Education. The junior college specialties are Political Education, Political Education and History, English, Library and Information Science, Mathematics, Physics, Computer science and Technology, Geography, Physical Education, Adult Education Management, and Education Management. These degrees require three years.

The target students are mainly In-service secondary school teachers. The persons who apply for correspondence studies must have the educational level of secondary school graduates and the In-service persons must apply for specialties related to their occupations. They are admitted by strict entrance examination.

In order to strengthen the organization and management for correspondence education the college, the local educational administration and the institute have formed a three-in-one management network. This is detailed in Papers of Agreement in Correspondence Education. They set up study centers in local educational institutes in Shanghai Yantai, Qingdao Weifang, Taian, Huimin, Chuxian County, Wuxi, Suzhou, Yangzhou, Jiaying, Hangzhou, Ningbo, Jinhua, Lishui, Shangrao, Zhangzhou, Xiamen, Changsha, Luoyang, Wulumuqi, and Kunming.

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Along with the development of correspondence education, ancillary management by computer is expected. The college has now established a computer-centered information management system and endowed the management system of correspondence higher education with high efficiency and a powerful function.

The Manual for Correspondence Students in the East China Normal University has been completed. Every school year six to eight courses are required for liberal arts students and four to five courses for science students. Self-learning is an important part of the correspondence courses. The college guides the correspondence students' self-learning and cultivates their self-learning ability through various correspondence teaching materials, guide books, self-learning groups, concentrated face-to-face instruction, and study tours. Once or twice each semester students go to local study centers to take part in the face-to-face teaching activities which are conducted by teachers from the college. Generally these activities are arranged in summer and winter vacations and each lasts two weeks. Besides these sessions, study center assistance is always available.

The students in Shanghai receive face-to-face instruction once or twice a week and must do the study assignments which are regularly given in accordance with the teaching programs and the students' progress. They mail their assignments to their teachers or to tutors. Study assignments include quizzes and exercises which are corrected by teachers from the college and the local study centers. Quizzes are sent back and marked only by teachers from the college. Laboratory experiments and field-work, important components of correspondence courses, are a means to provide students with basic technical training and cultivate the ability to solve practical problems. For science students, laboratory experiments are conducted locally or undertaken during summer or winter vacations. The field work for science students, outlined in the syllabus, is conducted in the local areas. The liberal arts students also do required fieldwork and social investigation.

The college strictly controls the graduation examinations, graduation theses, and examination of comprehensive abilities so as to cultivate, train and testify to the student's ability to analyze and solve problems.

Most students fall into the twenty-five to forty year old age group, and 85% of students are male. About one-third of science students drop out. From 1956 to 1990, 88,405 students graduated. From 1978 to 1990, there were 779 junior college graduates and 5,196 graduates. In 1990 the college had 3,814 correspondence students on the roll, and 421 graduates. In March 1983, the Ministry of Education formally gave East China Normal University the right to confer bachelor degrees on correspondence graduates. Since then, 10 to 15 % of correspondence graduates are awarded a bachelor's degree. The college has forty full-time teachers, sixty administrative staff, and some part-time teachers.

The college pays attention to compilation of correspondence teaching materials that suit adult self-learning. The college has stipulated this in *Methods for the Compilation, Printing and Publication of Correspondence Teaching Materials*. According to the rules and regulations, there are about 100 kinds of teaching materials and sets of self-learning guide books. The college pays attention to adult higher education research. The main orientation is research on the basic theories of adult higher education, continuing education, China's adult higher educational history, and staff-worker education.

The bimonthly *Research in Adult Higher Education* is edited and published by the editorial department which maintains nationwide communication with almost 100 correspondents since 1982. Research shows that most of the graduates have either risen to

leading positions or become the technical and professional mainstays of their units.

Every year the State Education Commission grants the equivalent of US \$134,000, and the Shanghai Higher Education Bureau grants the equivalent of \$40,000. Correspondence students needn't pay tuition fees. Their units pay a nominal administrative fee to the study centers and they must provide travelling funds for the students' participation in teaching activities.

The college places emphasis upon international academic exchange and cooperation in research. In October 1983, joint comparative research was conducted by the college and the extension department of Victoria University in Canada on the process of distance education. IDRC of Canada financed the college to train eight staff members and provided equipment valued at more than \$9,000. The college has also established academic exchanges with British Columbia University in Canada.

The Adult Higher Education College of East China Normal University is looking forward to growth in correspondence education, guided by the slogan Education Must Face the Modernization, the World and the Future to open a new era in the field.

China's Radio and Television Universities

China was one of the first countries to use radio and television for educational purpose. In 1955, radio correspondence schools were founded in Beijing and Tianjing. During the early 1960's, the first television universities were founded in Beijing, Tianjing, Shanghai, Shenyang, Harbing, Guangzhou, Wuxi and other cities, to meet the growing demand for adult education unmet by campus-based institutions. These television universities were run on a trial basis and offered eleven undergraduate and junior college specialties in Chinese Language and Literature, English, Russian, Physics, Mathematics, Chemistry, Political Education, Chemical Engineering, Electrical Machinery, and Mechanical Engineering, which were aimed at school teachers to provide them with the opportunity to raise their educational level and to upgrade their professional qualifications. Until 1965, these TV universities enrolled 129,805 students and 15,584 graduated.

These universities were closed because of the Cultural Revolution (1966-1976), after which China entered a new era of socialist modernization construction. During that time however only 5 % of secondary school graduates could be admitted by the existing institutions. With less than one percent of the population registered in universities, China ranked in the bottom ninth in the world. On average, education funds per person was only \$5.00, which ranked in the bottom third in the world. Only 3% to 4% of staff and workers received higher education. China is a vast country. The remote and rural areas are underdeveloped in terms of culture, science and technology. Economic and social growth urgently required various forms of specialized personnel. Faced with this situation, the Chinese government decided to develop distance education, facilitated by a TV network which covered most areas of China by the end of 1970's. These conditions combined to encourage the establishment of radio and television universities. In February 1978, the State Council approved a report on the founding of Central Radio and TV University (CRTVU) with twenty-eight Provincial Autonomous Regional and Municipal Universities (PRTVUs). One year later, the TVUs began to enroll students nationwide.

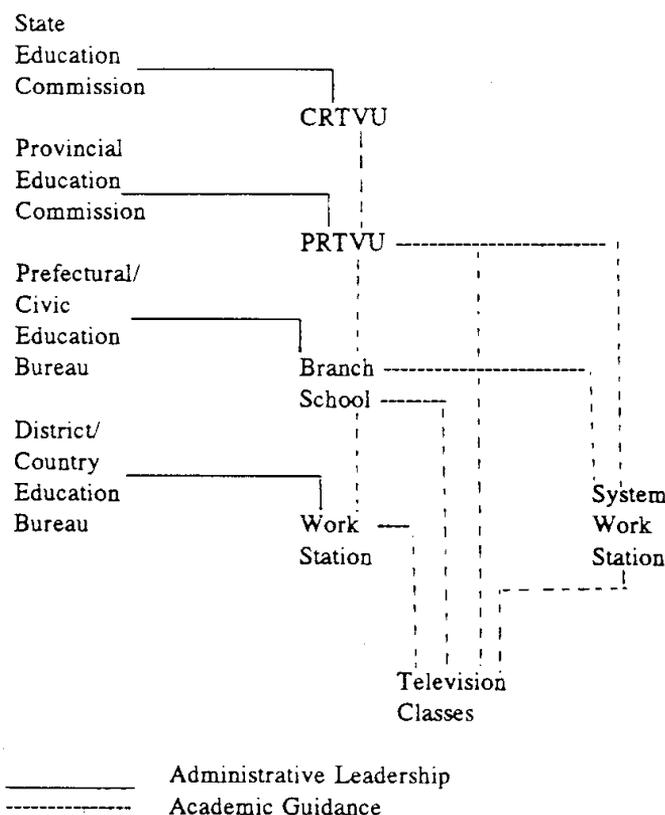
As of 1990, the national system of higher education through radio and TV included the CRTVU, forty-three PRTVUs, 595 branch schools and 1272 work stations. In April

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1990, China Liao Yuan Radio and TV School (simply called Liao Yuan School) was set up under the auspices of the State Education Commission. It is administered by the CRTVU to educate the rural population, improve management and farming techniques, as well as to raise the farmers' cultural level so as to increase agricultural production.

The national system of Radio and TV Universities (TVUs) is run at the central and local levels, corresponding to China's system of national and regional governments.

TABLE 1: Administrative and Academic Organization of the TVU System



CRTVU is responsible for producing the curriculum for TVUs and ensuring that this curriculum includes all the subjects which are recognized as of interest nationally. It then produces syllabuses, and radio and TV programs for these courses. It is also responsible for writing, editing, publishing and distributing materials for these courses; organizing end-of-semester national examinations and ensuring that marking is standardized, drawing up national examination timetables; training teachers, technicians and administrative staff; conducting research on higher education through distance learning; directing the teaching administration of Prow's, and coordinating academic work when it is shared by more than one PRTVU. CRTVU is thus the TVUs center of teaching administration, program production, course delivery and distance learning research.

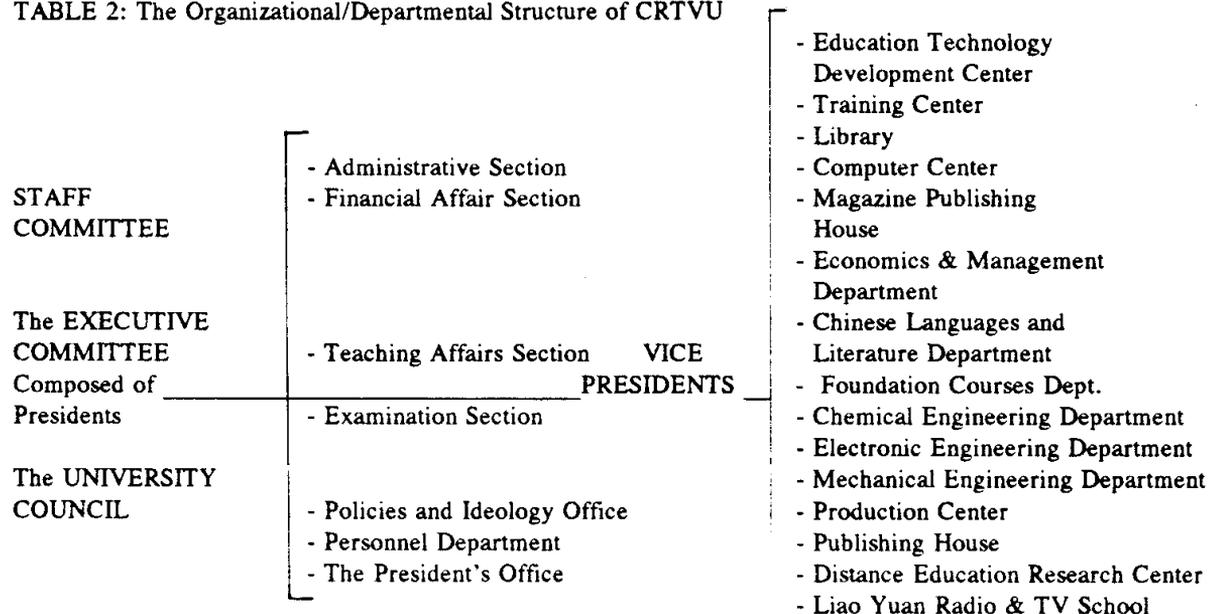
The PRTVU's are responsible for: producing courses in subjects which are of specific interest to their region; producing syllabuses, TV and radio programs, writing course materials and supplementary materials for the courses they have produced; setting end-of-semester examinations for their own courses and marking them. They organize the examinations set by CRTVU and mark these papers, ensuring that teachers follow set

administrative and examination procedures. They oversee new student enrollment, keep student records, and issue degrees and certificates; train teachers and keep abreast of new teaching methodology. Further, they promote the interchange of ideas on the running of local TVUs; direct the teaching and administration work done in branch schools and work stations; and provide advice, guidance and help to students with academic/personal problems.

Branch schools are responsible for all aspects of scheduling, including timetables for watching TV programs, tutorials, examinations, tests, laboratory work and field studies as set out by CRTVU and the local PRTVU. They also ensure that teachers follow the set administrative and examination procedures. Their responsibility includes ensuring that course syllabuses are adhered to; setting up work stations and TV classes and directing their work; providing advice, guidance and help to students with academic/personal problems; issuing degrees and certificates; and administering established courses in the subjects which are of specific interest locally.

Study venters are responsible for: recruiting teachers and tutors; organizing TV classes and maintaining high teaching standards; timetabling tutorials, laboratory work and field studies; distributing teaching materials; and providing advice, guidance and help to students with academic/personal problems.

TABLE 2: The Organizational/Departmental Structure of CRTVU



Generally, foundation courses and most of the key specialized courses are offered by CRTVU, while more specialized courses are offered by local TVUs. As of 1990, the CRTVU has offered 230 junior college courses in twenty-one specialties in Science and Engineering, Humanities, Economics and Management, and Agriculture. PRTVU and their branch schools offered their own courses to meet local needs. The total number of courses offered by TVU's amounted to over 500, covering more than 294 specialties.

Three year junior college courses are designed for full-time students, who must complete the course in three years. A total number of 114 credits are required, which may take four years or more for part-time students to complete. The two year junior college course is designed for full-time students, and may take three years for part-time students. A total number of seventy-six credits is required for them. Students are awarded one credit

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for every eighteen hours of study, field or laboratory work. Ten credits are given for a thesis. Study includes such activities as watching the TV programmes, attending tutorials, doing homework and assignments and studying alone. A TVU student must obtain no less than 60% of his/her total credits by courses offered by CRTVU.

Liao Yuan Radio and TV school offers courses on Planting, Aquatic Product Breeding, Animal Husbandry, Forest and Fruit Tree, Processing of Farm Product, Maintenance of Agricultural Machinery, Skills and Technology in Rural Enterprises, Management of Small Enterprises, Energy Sources in the Countryside, Agricultural Environmental Protection, Family Planning, Health and Hygiene, Background Knowledge on the History of China, and Political Development and Present Ideology.

The TVUs' target students are In-service adults, fresh secondary school graduates and young school leavers, waiting to be assigned jobs. They come from many different walks of life. They must be given permission by their units to study and pass the national entrance examination set by the State Education Commission for Adult Higher Education. Thus they are admitted to the TVUs. They study full-time, part-time or in their spare-time, but all of them receive full salary and all other benefits that fellow workers enjoy. Fresh secondary school graduates and young school leavers were first admitted to the TVUs in 1986. Those fresh secondary school graduates who pass the national entrance examination for conventional institutions are automatically admitted to TVUs. The school leavers must pass the adult examination before gaining admission to TVU's. All of them are expected to study full-time. Free viewers are those who do not take the entrance examination and study on a self-instructional basis. In the past, they could attain diplomas or single-course certificates if they took and passed the required examinations, but since 1986, TVU system has not accepted free viewers. Continuing education students have already received some form of higher education. Their study purpose is to upgrade their professional qualification or broaden their knowledge of a specific subject. Other types of students, such as Liao Yuan School's students, are not required to take the entrance examination. After they finish study, they can gain certifications. As of 1990, the TVU system had enrolled 1.83 million students and 1.25 million had graduated. In 1990, there were 420,000 students on the roll.

TABLE 3: Student Enrollment and Graduation at Junior College Level

Year	ENROLLMENT			GRADUATION		
	All Subject	Single Subject	Total	All Subject	Single Subject	Total
1979	97 464	224 725	322 471			
1980	79 377	80 124	159 501		92 714	92 714
1981	-----	-----	-----		47 590	47 590
1982	184 973	88 083	256 056	92 022	94 566	186 588
1983	235 567	18 728	254 295	67 905	61 286	129 191
1984	205 858	11 992	217 850	17 032	105 185	122 217
1985	273 112	11 446	284 558	165 204	75 386	240 590
1986	215 200	21 861	237 061	248 778	142 015	390 793
1987	130 029	85 500	195 529	178 891	11 310	190 201
1988	191 900		191 900	275 000		275 000
1989	124 542		124 500	131 200		131 200
1990	111 730	86 514	198 244	120 067	39 383	159 450
Total	1850 034	588 973	2438 965	1296 099	669 435	1834 334

As of 1990, more than three million people have taken continuing education courses and post-training courses.

The TVU system has played an important role in adjusting the proportion of junior college graduates to university graduates. There used to be many more university graduates than junior college graduates. The ratio in 1980 was 3: 1, and it was adjusted to 1:1 in 1990. The number of TVU students helped to increase the proportion of adult students over the age of twenty-five in China's higher education institutions. The number of TVU graduates majoring in the Humanities and Economics and Management has helped to improve the curricular arrangement in China's education. For example, the number of graduates majoring in Economics and Management amounted to more than 248,800 in 1986, which is 7.6 times the number of graduates from on-campus institutions in the same year, and is 1.23 times the number of those institution's graduates between 1949-1986.

TVU has provided fresh secondary school graduates with greater chances to receive higher education, and has offered a second chance for young school leavers to enter higher institutions. Twenty-eight per cent of TVU students are females, while 2.5% of TVU students are minorities. The percentage of TVU students who are workers, teachers, cadres and workers doing cadres' jobs is respectively 59.4%, 5.1%, 12.5%, 12%.

China's TVUs have formed a multi-media teaching model by combining printed teaching materials, audio-visual programmes and face to face tutoring. The teachers of the TV and Radio course programmes are chosen from key universities throughout China and most of them are famous professors and experts. In the programmes they focus on difficult and key points. Radio and TV programmes are broadcast nationally by central and local radio and TV stations and also are transmitted by satellite.

TABLE 4: Organization of Programmes and Their Transmission

Broadcasting Organization	Media Used	Area Broadcast to	Time Available*
CCTV(courses offered by CRTVU)	Microwave	Nationwide	22 teaching hours per week
CETV(courses by CRTVU)	Satellite	Nationwide	84 teaching hours per week
Provincial and civic radio/TV stations (courses offered by CRTVU and PRTVUs)	Radio and TV	Regionally	Varies locally
Branch schools work stations and TV classes	Audio-visual equipment; audio-and video-cassettes		

* One teaching hour lasts 50 minutes for a radio/television programme. Before September 1989, CCTV transmitted courses offered by CRTVU amounted to thirty-three teaching hours per week.

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Because of the limitation of broadcast hours, TVU produces and distributes audio and video cassettes to study centers for some courses. Printed teaching material compiled by the staff of CRTVU and professors from non-distance institutions are used to accompany radio/TV programmes. This material includes course books, reference, and study guide books. CRTVU has specified these materials in Standards of Compiling Printed Teaching Materials and Standards of Making Audio Visual Teaching Programmes. CRTVU and TVUs have also set up a printing, publishing, and distributing system for teaching materials. All TVU students are organized into TV classes in centers, where the quality of transmission is of a higher standard than that at home. The student can get tuition in TV classes as well. Tutorials are used for the purpose of distributing and correcting homework and making assignments for which credits are given.

Science students must carry out a number of practical experiments, assessed by their tutors, to gain the necessary credits to graduate. Engineering majors must gain practical experience at a work site and complete a project before they can graduate. They are expected to do this during their holidays. Social science students must conduct a field study and write up their findings.

Students' progress is assessed mainly through examinations, which are set and produced by PRTVUs for their regional specific courses and are held in mid-semester. Examinations for CRTVU core courses are held at the end of each semester. While they are organized centrally, examinations are administered locally, and are held on the same date throughout the country. In-service adult students who are studying full-time must go back to their original work units if they fail two end-of-semester examinations in any given semester, or three examinations in different semesters. They may go on to become part-time students if they receive approval from their work unit. These regulations about failing examinations apply to all students.

TVU's conduct research on educational theory and technology. For example, the project of Research on Distance Education by Large Scale Use of Electronic Communication Technology has achieved some results and is one of the key national research projects in the country's seventh Five Year Plan. In addition, the Nationwide Sampling Tracer Study on TVU Graduates, supported by World Bank Loan, has been completed. At present, three research projects are being conducted on: the relationship between carrying out social development aims and TVUs; openness and controlling the quality of TVUs; and multi-media teaching and teaching materials construction. The publishing house of CRTVU compiles and publishes the monthly magazine China TV University Education.

TVUs have their own staff members experienced in distance education, working as teachers, administrators and technicians. TVUs also employ part-time tutors, the majority of whom are attached to Branch Schools and Study Centers. They are recruited from campus-based institutions, research institutes, and other enterprises.

The academic standards of TVUs have been positively acknowledged by the government and by academics of other institutions. The levels of graduates are satisfactory. A sample tracer study, conducted over a three-year period on 320,000 graduates, revealed that employers find most of their TVU graduates to be qualified. It has been proven that 90% of them re qualified junior college graduates, 80% in management competence and 70% in foreign language competence. Compared with other graduates, TVU graduates are more experienced in work. They play an important role in all walks of life, and some of them have gained outstanding achievements. The TVU system is thus efficient and cost

effective.

Every year the State Education Commission grants the equivalent of about US \$800,000 to CRTVU. In addition, government's health and education funds are used to compile teaching materials. Liao Yuan Radio and TV School gets about \$300,000 from the State Education Commission. PRTVUs receive different amounts by the local education administrative department of government, according to need.

CRTVU is an associated center of APEID which is sponsored by the regional office of UNESCO. As an associated center, CRTVU has held a number of seminars on distance education and has provided UNESCO with data and information.

It has also over the years built up and maintained good relationships with other Open Universities both in developed and developing countries (e.g. Open University, U.K. Sukhothai Thammathirat University, and Ramkhamhaeng University, Thailand; Indira Gandhi National Open University, India; Athabasca University, Canada). These contacts have provided a valuable forum for discussions and the exchange of ideas and have been of mutual benefit.

A number of organizations have provided China TVU with substantial financial and educational assistance. The World Bank has funded the establishment of eighty-five Study Centers throughout the country, as well as learning laboratories, audio-visual laboratories, and libraries in CRTVU and PRTVUs. The World Bank has also provided funding for a large scale internal training program and the money for technicians and academic staff to be trained abroad. CRTVU has received educational assistance with their Foreign Language Courses. The British Council has had links with CRTVU since 1981. EFL advisers sent by the British Council have, over the years, helped CRTVU with course book writing and the production of TV programmes. The Japanese government has funded the production of the Japanese Language Course, as a result of cooperation between CRTVU and Japan NHK International Inc. To date, the Nationwide Sampling Tracer Study on TVU graduates, supported by a World Bank Loan, is finished. The joint project of Compilation and Production of an Audio-visual Teaching Package, co-produced by CRTVU and Japan's NHK, has also been completed.

The strategy of developing China's TVUs is progressive educational reform, to perfect its system, to improve its teaching quality, to make it more cost effective, to develop junior college courses in a stable way and at the same time to develop continuing education at the postgraduate level as well as vocational education at the primary and secondary levels. The TVU system continues to improve the mechanism of running the system according to the needs of social economic development: it adjusts educational aims and direction in accordance with suggestions made by personnel it increases the flexibility and adaptability of education by reforming teaching plans and curriculum, and it further improves feedback through use of educational evaluations.

HONG KONG

Gajaraj Dhanarajan

THE NATIONAL CONTEXT FOR DISTANCE EDUCATION

Hong Kong is a British Crown Colony. It has been so for the past 140 years. It will remain so until June 1997 when the sovereignty of the territory will be handed over to the People's Republic of China. From then onwards for the next fifty years the governance of the territory will be conducted according to the terms of an agreement reached between the governments of the United Kingdom and the People's Republic of China. Under these terms Hong Kong becomes a Special Administrative Region of China but would be allowed to continue with its present system of government and life under a changed sovereignty.

Until that sovereignty is transferred to the People's Republic of China, executive power to govern the territory is concentrated in the hands of a Governor chosen by the British Government. He directs the activities of the Hong Kong Civil Service and all acts of government are done in his name. He is advised on the development of policy and other matters by an Executive Council. Legislation is enacted and funds provided by a Legislative Council, the members of which are partly elected and partly appointed. The Legislative Council also debates policy and questions the administration. In addition there are two municipal councils and nineteen district boards which have responsibility to provide public health, cultural and recreational facilities. The Governor manages the government through an administrative structure organized into branches. These branches collectively form the government and its head is the Chief Secretary. Under the Chief Secretary are twelve branch secretaries, one of whom is the Secretary of Education and Manpower. It is the responsibility of this Secretary to manage the educational sector of the territory. Between now and June 1997 there will be shifts and changes within this system. Hong Kong is in transition.

The territory covers about 410 square miles and is made up of the Island of Hong Kong, the Peninsula of Kowloon and the New Territories. There are also about 230 outlying islands, the biggest of which is called Lantau on which a new airport is being constructed.

The Hong Kong economy is basically market driven. Natural resources are limited and therefore the territory depends on imports for virtually all its requirements, including food and other consumer goods, raw materials, capital goods, fuel and even water. It must therefore export on a sufficient scale to generate foreign exchange earnings to pay for these imports, and the volume of exports must continue to grow if the population is to enjoy a rising standard of living.

Given resources, location and manpower the contribution of the primary production (agriculture, fisheries, mining, quarrying) to the economy is small in terms of GDP and employment. In secondary production, manufacturing accounts for the largest share both in terms of GDP and employment. However this sector is slowing down. The contribution of the tertiary services sector is, on the other hand, increasing both in terms of GDP and employment. This shift in economic activity has implications for the educational sector.

Manpower surveys indicate that between now and 1996 the manufacturing sector is expected to lose about 92,000 jobs while the professional, technical and managerial sectors are expected to gain about 94,000 jobs; not all of these demands will be met by the graduates coming into the job market, for the first time, through schools, colleges, polytechnics and universities. Table 1 captures data pertaining to manpower needs and supply by educational levels by 1996:

TABLE 1: The Manpower Needs of Hong Kong up to 1996

Educational Level	Needs	Supply
Lower Secondary & below	1,584,900	1,669,600
Upper Secondary	726,800	714,500
Matriculation	135,700	164,300
Craft level	30,600	19,300
Technician level	97,500	99,000
Sub-degree	160,100	128,600
First degree & above	222,900	229,000

Economic policy in Hong Kong is to a large extent dictated, and constrained, by the special circumstances of the economy. It is an economy that is more easily vulnerable to external forces than its neighbors. While government action is designed to offset unfavorable external influences, through deliberate policy, except where social considerations are overriding, the allocation of resources in the economy is best left to market forces, with minimal government intervention in the private sector.

Government derives its income through duties levied on a selected group of commodities, rates or tax of landed property, and a tax on betting, entertainment, estate, hotel accommodation, profits and earning. It also derives income on sale of land, various licenses and investments. In 1989/90 the total government revenue was HK \$82.4 billion. In that year government expenditure amounted to HK \$67.8 billion. Of this HK \$15,446 million or 15% was allocated to education. The tertiary sector excluding the Open Learning Institute (OLI) received HK \$4,500 million of this money. The OLI received a direct subsidy from the Government of HK \$45 million to cover its start up and recurrent costs for the year.

By 1991 the population of Hong Kong was about six million people, making it perhaps one of the most densely populated places in the world. Roughly 90% of the population is Chinese (mostly of Cantonese ancestry). The ratio of males to females has been changing from the previous decade. In 1990 there were 1038 males to every 1000 females while in 1980 it was 1084. Similarly the age distribution of the population has also been changing rapidly. In 1990 21.5% of the population was under fifteen and 8.8% above sixty-five; in 1980 it was 25.5% and 6.4% respectively. The dependency ratio - the ratio of the young and the aged to people in the fifteen to sixty-four age group had dropped from 470 per 1000 to 434 between 1980 and 1990. Hong Kong is aging. Almost 90% of this population is literate in either Chinese or English.

Chinese (Cantonese), other than for a small minority, is the most popularly used language for social purpose in Hong Kong. However English in practice if not in theory

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functions as the official language for legal, commercial and governmental purposes.

Instruction at primary and secondary schools is given in both the English and Chinese languages depending on the schools language traditions. Government provides funds for both types of schools. At the matriculation (Form 6 and 7) almost all instruction is in English except for Chinese Language studies. In the Universities, Polytechnics and Colleges instruction is in English except for Chinese language studies. At the Open Learning Institute, other than courses leading to an Arts degree in Chinese literature, philosophy and history, all other instruction is in English. The language of instruction is a matter of great public interest in Hong Kong and the emergence of a clear policy on this can be expected in the near future.

"Education in Hong Kong is a unique amalgamation of Chinese and Western educational traditions, transplanted before World War 1, and grew up with the Hong Kong Community during the past forty years" (Luk, H.K., 1990). There is available today almost free and compulsory education up to lower secondary level with tremendous support from the public purse. In 1990 some 1.2 million children between the ages of five and nineteen were attending classes in the colony's 1500 schools. The core of the school system is the eleven year primary and secondary education segregated into primary, junior secondary and senior secondary. Students move from one level to another through a series of school based internal assessments or public examinations.

Long before children enter school on or just after their sixth birthday many would be enrolled in kindergartens in courses that would vary from one to three years. In 1989-90 some 200,000 children were attending these privately run establishments. Primary school lasts six years. The curriculum is made up of English, Chinese, Mathematics, Social Studies, Science, Arts and Crafts, Music and Physical Education. The vast majority of schools use Chinese as a medium of instruction for all subjects except English. The six year program culminates, through a series of internal assessments scaled through an externally administered Academic Aptitude Test, in a secondary school placement. In 1990 over 534,000 were enrolled in more than 1000 primary schools.

Junior secondary school lasts five years. This is made up of a junior cycle of three years which is compulsory, and a senior cycle of two years which is not compulsory. Separating the movement from junior secondary to senior secondary is a school based Junior Secondary Education Assessment and the culmination of the senior secondary study is the Hong Kong Council of Education Examination. Notwithstanding the non compulsory nature of the senior level, participation is nearly universal.

Secondary schools are divided by curriculum into grammar schools which follow an academic program, technical schools and prevocational schools. In 1989-90 there were 397,000 pupils in 382 grammar schools, 21,000 in twenty-two technical schools and 17,000 in twenty-one prevocational schools. Schools are also divided into two language streams. More than 90% of the pupils are in Anglo-Chinese streams. Here instruction is mostly in English except for Chinese cultural subjects which are taught in Chinese. The other 10% follow instruction in Chinese.

Students aspiring for higher education leading to University degrees will proceed to Form Six. There are three types of Form Six viz: a one year program preparing students for the HK Higher Level Examination (HLE), a two year program preparing them for the HK Advanced Level (ALE) and a one or two year program preparing students for the British General Certificate of Education (GCE). In 1990 nearly 40,000 students would have sat for

one or the other of the above examinations.

Post secondary educational provisions in Hong Kong are available for a range of opportunities from teacher education to career, technical vocational training and university level study.

There are four Colleges of Teacher Education which train non graduate teachers for primary and secondary schools. They are directly funded by government. They run one, two and three year programs for Certificate and Diploma level qualifications. In 1989-90 about 2657 teachers were undergoing training through these programs. Career, technical and vocational education is provided by eight Technical Institutes run by the Vocational Training Council and they provide 340 odd courses at craft and technician levels. These programs are popular. In 1989-90 about 12,300 full time, 15,600 day part time and 29,600 evening part time students were enrolled in these courses.

University level education in Hong Kong is made up of both public and privately funded institutions. Of the ten institutions that make up this sector seven are completely dependent on government funding. The funds are made available to them through the University and Polytechnics Grant Committee (UPGC); one receives support from the government via the Municipal Services Department; one receives government support directly from the Secretary of Education for the first four years of its existence after which it will have to generate its running costs through its own means and finally one is completely run by private funding. Besides these, there are also a number of programs run by small local commercial colleges and many overseas tertiary institutions. Table 2 summarizes data on institutions that are run with government support.

TABLE 2: Profile of Hong Kong's Institution of Higher Learning

Institution	Founded	Funding	Enrollment (90/91)
U of Hong Kong	1911	UPGC	7,935
Chinese U of Hong Kong	1963	UPGC	8,201
HK Polytechnic	1972	UPGC	13,292
City Polytechnic	1982	UPGC	8,018
Baptist College	1983	UPGC	3,000*
HK University of Science & Technology	1988	UPGC	900
Open Learning Inst.	1989	Govt/Cost recovery	17,500
Lingnan College	1991	UPGC	1,100*
The HK Academy of Performing Arts	1990	Municipal Services	600

* Established long before this date as Private Colleges

Hong Kong is well served by excellent communication infrastructure for both internal

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and external linkages. It is a hub for regional air and sea services. Road, rail and boat services by public, quasi government and private ventures are well established. Public transport is extensively available throughout the day and night penetrating the entire territory.

Postal services operated by the government work efficiently and in recent times entrepreneurial courier and mail services have also begun to provide efficient deliveries to a territory that places a great value on efficient communication. Hong Kong probably has one of the world's most efficient telephone services as well. Penetration is also among the highest in the world. By the end of 1990 an estimated 3.3 million telephones, served by 2.4 exchange lines, gave the territory a telephone density of over fifty-six telephones per 100 population. Facsimile transmission is also becoming popular with over 107,000 machines by the end of 1990. Packet switched data network through Datapak is also available through the telephone company. Modernization of the telephone system is progressing rapidly with optical fibre and advanced ISDN signaling techniques being installed.

TABLE 3: Telecommunication Services in Hong Kong

Service	Volume in 1990
Telephones in service	3,300,000
Telephones per 100 population	56
Fax lines	107,500
IDD connections	875,000
Cellular telephones	130,000
Radio pagers	700,000

The news media includes nearly seventy daily newspapers, over 600 periodicals, two private television companies broadcasting over four channels for almost 580 hours weekly; twelve radio channels both government and commercial which broadcast almost continuously all day long, every day. Supporting the media are about 4500 print shops and more than a dozen film and television production houses of considerable size. The ownership of television, VTR's and radio receivers is quite widespread in Hong Kong.

TABLE 4: Ownership of Telecommunication Systems

Facility/System	% households
TV sets	98
Video recorders	62
Radio receivers	above 99

HISTORY AND BACKGROUND

Hong Kong's concern for the lack of adequate provision for tertiary education is a recurring theme that has continuously been expressed by community and educational leaders as long ago as the mid seventies when less than 5 % of the relevant age group was able to gain access to colleges and universities. The situation was even worse in the sixties. Coupled with this lack of opportunities was a society that placed a high value on education, was undergoing transition in its economic activities and was eager to enhance its career options through investment in training and intellectual development. Some though not all of this demand was met by initiatives in the private sector and the extramural and continuing education departments of the two universities first and later by the Hong Kong Polytechnic. Additionally a number of overseas tertiary institutions also provided costly access to their distance education programs especially in business education both at the undergraduate and postgraduate level.

TABLE 5: Provision for Continuing Education In Hong Kong in 1988

Institution	Level	Discipline	Enrollment
U of Hong Kong	multi	wide range of formal/non formal	40,000
Chinese U of HK	multi	- ditto -	53,000
HK Polytechnic	multi	- ditto -	13,000
City Polytechnic	multi	- ditto -	2,000
Baptist College	multi	- ditto -	60,000

Source: Lee Ngok (1992): Opportunity Knocks: Continuing Higher Education in Hong Kong.

The case for strengthening continuing education in Hong Kong was promoted in 1982 by the Llewellyn Report entitled "A Perspective on Education in Hong Kong". The report stated:

With its small geographic size and its high technological standard, Hong Kong would be eminently suitable for a system of education by radio and TV, combined, for example, with weekend study camps and evening tutorials.... We are thinking in terms of a large scale, comprehensive alternative to institutionalized education on the school and technical education/vocational training levels as well as in higher education.

The above observation was taken into account by a government standing committee on education called the Education Commission. The Commission takes up current issues on education for an in depth investigation and makes a report with recommendations to the government which then subjects the report to public consultation before taking it further for study and implementation. The Commission's second report in 1986, called the Education Report No.2 (ECR2), made the following comments on the objectives of open education in Hong Kong, which are:

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* to provide a second chance for those who had to forgo, or were denied the opportunity of, further education when they left school, or whose requirements for further education developed relatively late in life;

* to provide continuing education to update and enhance the training of those who completed their further education at the beginning of their careers; and

* to provide retraining for those who need to change or extend their career or vocational skills later in life to adapt to technological, economic and social change.

In September 1987, the Executive Council of Government approved the establishment of a Planning Committee to produce an implementation plan for setting up the Open Learning Institute (PCOLI). The PCOLI submitted its report to Government in early 1989 with the following recommendations:

i. The OLI will be a new institution established by law. It will confer academic awards in its own name but will operate in a consortium with the existing tertiary institutions which are funded through the University and Polytechnics Grants Committee.

ii. The setting up and initial operating costs of the OLI will be supported by the Government. The Institute is expected to become self-financing in about four years through income from tuition fees and other sources.

iii. The OLI will offer courses at sub-degree, first degree and higher degree levels. Its programs will be subject to academic accreditation by external bodies and its awards are expected to be recognized both locally and overseas.

iv. The OLI will have three schools: Science and Technology, Business and Administration, and Arts and Social Sciences offering programs in a range of disciplines to be taught in either English or Chinese.

v. Entry to all OLI programs in sub-degree and first degree studies will be open without prior academic qualifications. The courses will be structured on a credit unit system and students may broadly study at their own pace.

vi. The OLI will conduct its teaching/learning activities through distance education methods using a variety of media and related communication technologies to facilitate self paced learning.

The Government accepted the report and passed legislation to establish the Open Learning Institute of Hong Kong in May 1989 (Order No. 22/89), as a body corporate, with the following objective: "to provide in Hong Kong opportunities for higher education by means of open learning and thereby to advance learning and knowledge, and enhance economic and social development, in Hong Kong."

The Institute began functioning as of that day and advertised for its first students in 1989. Some 300,000 individuals made inquiries, 65,000 actually applied and 4,500 were randomly selected to read in eight courses, starting October 2, 1989.

LEGAL STATUS OF DISTANCE EDUCATION

Legally the Open Learning Institute is the only organization in the territory empowered to deliver courses, for formal academic qualifications, through the distance education mode.

This explicit provision is made in Order No 22/89 signed by the Governor in Council on May 27, 1989. All other publicly supported tertiary level institutions practicing distance education do so for non institutional awards, while the overseas tertiary institutions do so under a gray area not captured clearly by the territory's educational acts.

OVERVIEW OF CURRENT SITUATION

Aims and Objectives

The rest of this paper will describe the objectives, structure, practice and performance of the Open Learning Institute Hong Kong on the basis of its legal position. Description of private, commercial provisions will fall short in terms of accuracy because of the confidential nature of business practices; the presence and activities of overseas tertiary institutions are unstable and the activities of conventional institutions in distance education do not lead to any formal and indigenous awards.

As a higher education institution, the OLI is involved in the acquisition and transmission of knowledge. Its main aim is to make higher education available, via distance learning, to those over the age of eighteen who wish to undertake study for career development or personal enrichment.

Distance education through the Open Learning Institution of HK is meant to achieve the following objectives:

- i. to provide access to higher learning to all those who may have missed or will be missing it through the conventional systems for one reason or another.
- ii. to provide a range of courses and programs at sub degree, first degree and second degree levels.
- iii. to enable students to complete programs at their own pace, in their own chosen location.
- iv. to provide study facilities and face to face tuition to support those students.
- v. to deliver courses by multi media means to students with widely different learning preferences and needs.
- vi. to ensure that exit performance standards of degree programs are equivalent to those of other tertiary institutions in Hong Kong and elsewhere, and to ensure that OLI degrees have equal status to those of other tertiary institutions in Hong Kong and elsewhere.
- vii. to strive to meet the perceived needs of Hong Kong society by developing and maintaining maximum cooperation with a range of interest groups (employers and employers' associations, government and other public bodies, voluntary associations and educational bodies) and by offering a suitable range of courses which students wish to take and can afford.
- viii. to recruit and retain staff members with a high level of expertise in distance learning and in their own discipline.
- ix. to provide opportunities for staff development to maintain the OLI's capability to provide up-to-date and appropriate education to its students.

Distance Education in Asia and the Pacific

Based on the above objectives the OLI has since developed a mission statement which states that:

* The Open Learning Institute of Hong Kong dedicates itself to providing degree, non-degree and postgraduate courses leading to awards and qualifications through a system of open access and distance education: thereby making higher education available to ALL those aspiring to it, regardless of previous qualifications, gender or race.

* The Institute through its Council and staff, in common with and through association with other institutions of higher education in the territory, commits itself to excellence in teaching, scholarship and public service.

* The Institute is further committed to achieving a balance of income and expenditure, in time, within the financial context of Hong Kong and to attaining this without sacrificing the level and quality of courses and support for its students.

Organization Structure

The OLI has a structure that enables it to exercise its responsibilities properly as a statutory body required to deliver quality tertiary education. Therefore its institutional structure is intended to: be simple and direct; develop, achieve and maintain high academic standards; take into account the need to deliver courses at various levels through a variety of methods; help the OLI become self financing; and ensure the smooth operation and public accountability of the OLI.

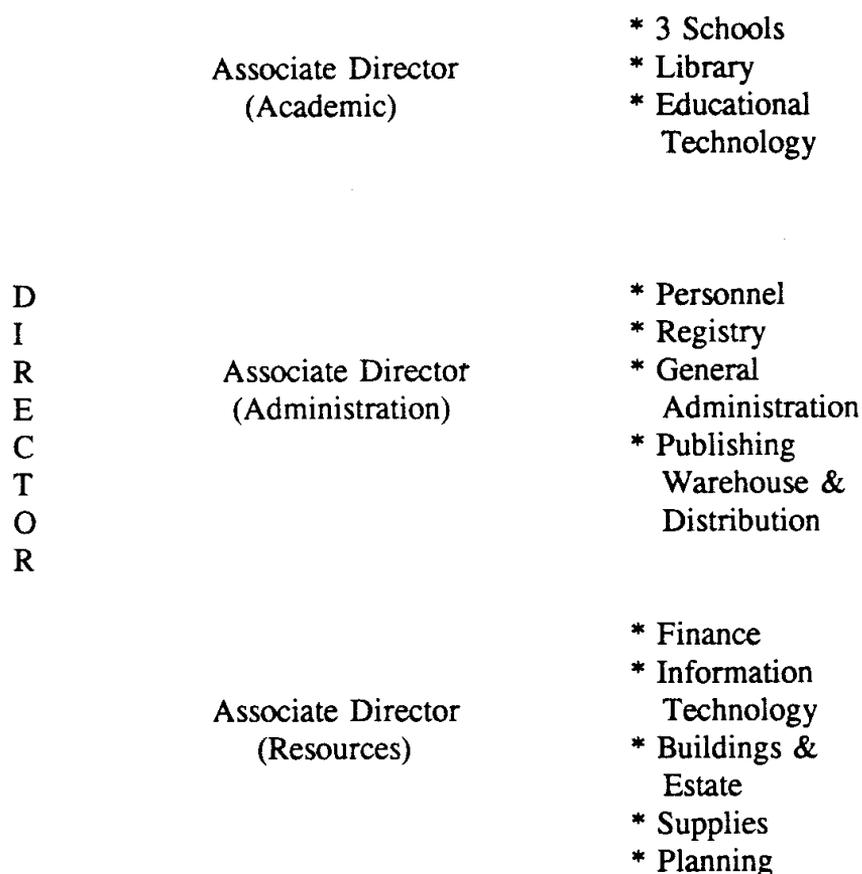
The formal structure comprises the President, the Council, the Standing Committees of Council, the Academic Board, and the School Committees. Working groups and ad hoc committees have also been established as and when necessary.

The President of Council is the Governor of Hong Kong. This is largely a ceremonial role. The Council is the governing body of the OLI. It has established an Executive Committee, with powers to make decisions on important items of business which cannot wait for the next Council meeting. Council has wide ranging powers, from hiring and firing staff, to approving programs, granting awards, allocating the annual budget, making regulations, etc. All of the powers are enshrined in the ordinance of the OLI. The Academic Board, subject to the overall direction and control of the Council, is responsible for: setting and maintaining academic standards; planning, coordinating and monitoring the design, delivery and development of all courses; and administering and monitoring all assessment and examination procedures. The Board is assisted in its deliberations by a number of standing committees. Currently active are the Advanced Standing Committee, Award Committee, Committee on Disabled Students, Broadcasting Committee, and School Committee. Besides its standing committees the Academic Board has delegated powers to constitute working groups to study specific issues for and on behalf of the Board in order to formulate policies or evaluate options.

The School Committee which is a standing committee of the Academic Board needs special mention, as it is an important group in the academic structure of the Institute. Each of the three current Schools of the Institute has a committee which interprets and implements Institute policy at the School level. All academic staff of the school are members of the committee. The Committee coordinates and promotes the work of the school and generally acts for it within the framework of the Institute's operation. The management structure and

organization of the Institute is illustrated in Figure 1.

FIGURE 1. The Senior Management Structure of the OLI



The Director is responsible to the Council for the management, conduct and administration of the Institute. The Director is assisted by three Associate Directors who in turn coordinate, supervise, and take responsibility for the performance of the fifteen academic and academic support units of the establishment. The three academic (units) schools are led by the Deans who are appointed to their position. They report to the Associate Director (Academic) and shape the academic direction of the Institute.

The Institute currently employs a total of 198 full time academic and non academic staff members, half of whom possess professional qualifications. Of the 198 full time staff less than fifty are academics. Assisting the fifty academics are about 1000 part time tutors and senior tutors. The tutors and senior tutors are fully trained for their role and form the human interface between the students and the Institute.

Financing Distance Education

The Government of Hong Kong designed the OLI to be a self financing entity from the very beginning. However to start the enterprise in October 1989 the government entered into

Distance Education in Asia and the Pacific

Memorandum of Understanding with the OLI whereby the public purse would be used to pay for the set up (capital cost) of the enterprise up to US \$7.1 million (1989 dollars) as well as on a reducing scale a total of US \$13.1 million to cover the recurrent cost. Under the scheme the OLI will have to become completely self financing by the year 1993/94. The protocol governing the self financing arrangement covers all direct costs (materials and tuition including the cost of full and part time academic staff, tutorial space, examinations and assessments, laboratories etc.), indirect costs (rent, utilities, support staff salaries and benefits, publicity, staff development, goods, services, etc.) and capital (building, equipment, course development, etc.). Table 6 illustrates the financial picture of the Institute from its start to the end of the last financial year(1991/92).

TABLE 6: Financial Summary of the OLI 1989 -1992

	1989-90	1990-91	1991-1992
Students Enrolled	4,237	13,009	17,535
Fee per Credit(HKD)	330	380	450
HK \$ (in millions)			
Direct Costs	7. 5	31. 7	46.4
Indirect Costs	39. 5	81. 7	104. 0
Total Recurrent Costs	47. 0	113. 4	150. 4
Total revenue	19. 3	76. 2	150. 4
Government subvention	42. 8	41. 3	20. 9

Geographical Coverage

By legislation the OLI is allowed to operate within the territory of Hong Kong. This includes the Island of Hong Kong, Kowloon Peninsula, the New Territories and the outlying islands. The Institute is preparing to operate in the southern parts of China in collaboration with the Chinese Radio and Television Universities. However, this is not expected to happen in the new future.

Instructional Systems

The OLI is a dedicated distance teaching institution. However, unlike other similar institutions, the OLI does not create all of its learning materials by itself. Perhaps less than 50% of the courses are actually designed in Hong Kong; the rest are leased from other institutions around the world, adapted for Hong Kong students and delivered in accordance with local culture and learning behaviors. The sources of the leased courses include the Open University of the UK, the Open Learning Agency of British Columbia, Athabasca

University of Alberta, Deakin University of Australia and Massey University of New Zealand. Courses that are designed in Hong Kong are mostly in Business Studies and Chinese Ans. These courses are created by using contract writers located in Hong Kong and other parts of the world.

All undergraduate courses delivered by OLI are basically print driven. Many of them contain non-print media elements such as audio, video and computer based instruction. Some video materials are also broadcast over public television. These broadcasts last three hours every week. Besides self instructional materials, student support also includes strong tutor support. There are currently about 700 part-time tutors who each take responsibility for thirty students. Tutors and students maintain contact through correspondence, telephone and periodic classroom sessions. Feedback and assessment is conducted through assignments and terminal examinations. A very complex protocol governs the criterion based assessment system of the OLI; both continuous assessments and final examinations carry minimum performance requirements.

Research Activities

Research into aspects of distance education is just beginning to happen at the OLI. Similar to other open systems, the institution is concerned about completion rates, learner behavior, material evaluation and appropriateness, application of technology and market needs. Because OLI must fund its own research, it is currently limited to studying completion rates, material evaluation and learner characteristics. Investigations are being planned to launch market research in the near future.

Enrollment in Distance Education

In its thirty months of operation the Institute has grown at a phenomenal rate. Total enrollment rose from 4237 in October 1989 to 17535 students by October 1991 (Fig.2). Course registrations rose from 5745 in 1989 to 25244 in 1991 (Fig.3). The pattern seems to indicate student preference for Business courses (58%) first, followed by Science and Technology (21%) and Arts (21%).

More than half the student population is male (66%); the median age is between twenty-six and thirty; a significant number of students (40%) have attended school for at least eleven years and earn more than US \$11,000 a year which is slightly higher than the per capita income of the territory.

International Affiliation

The Institute began establishing relationships with institutions and organizations for both business and fraternal reasons right from the start. It currently has business relationships with The Open University, United Kingdom; The Open Learning Agency, British Columbia, Canada; Athabasca University, Alberta, Canada; Deakin University, Victoria, Australia; Tasmania Institute of Technology, Tasmania, Australia; and Massey University, New Zealand. In addition, the Institute is either a full or associate member of The Association of Commonwealth Universities, The International University Consortium, The Asian Association of Open Universities, The Open Polytechnic Foundation, and The International

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Council of Distance Education.

Growth and Expansion

In a territory like Hong Kong, facing changes in sovereignty, economic activity and demography, growth in adult education is inevitable. With an aging and fully employed work force, educational provision not only enhances its productive capacity but also does not deprive it of its competitive advantage. Distance education is an attractive alternative. The Institute will begin to focus more attention on continuing and community education, competency based training, and on-site delivery of training courses in commercial, business and industrial sites. Teacher education is very much an area of growth for undergraduate education. Some 20,000 non graduate teachers may be expected to upgrade their skills in the next decade. A limited number of postgraduate courses may also be offered in the short term.

Problems and Issues

Achieving total financial self sufficiency will be the OLI's major challenge in the short term. The Institute in practice has achieved the target, but Hong Kong is entering a short period of uncertainty and movement of adults away from the territory will impact on enrollments and eventually revenue. Other areas of concern include the ability of the Institute to recruit and retain good professional and academic staff, the application of technology to deliver courses in a highly urbanized and compact environment, and the creation of appropriate courses for Hong Kong society.

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INDIA

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THE NATIONAL CONTEXT FOR DISTANCE EDUCATION

India is one of the oldest civilizations of the world. It covers an area of 329 million hectares extending from the snow-covered Himalayan ranges to the tropical rain forests of the South. According to the 1991 census, the total population of India is estimated at 844 million, accounting for about sixteen percent of the population of the world. In terms of land area, India accounts for 2.4% of the total land area of the world. Between 1981 and 1991, the population of India grew by 161 million and the compound annual growth rate of population was 2.11%.

India, a union of states, is a Sovereign Socialist Secular Democratic Republic with a Parliamentary form of government. India comprises twenty-five states and seven Union Territories. The states are: Andhra Pradesh, Assam, Arunachal Pradesh, Bihar, Goa, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Orissa, Punjab, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttar Pradesh and West Bengal. The Union Territories are: Andaman and Nicobar Islands, Chandigarh, Dadra and Nagar Haveli, Daman and Diu, Delhi, Lakshadweep and Pondicherry.

India is a developing economy with a per capita income of \$340 in 1988. Its share in the world GNP is one percent, though its population accounts for about sixteen percent of the world population. The occupational pattern of India is typically that of an under-developed economy with about sixty-nine percent of its labour force engaged in the primary sector (agriculture, livestock, forestry, fishing, plantations), thirteen percent engaged in the secondary sector (mining, manufacturing and construction) and about eighteen percent in the service sector (trade, commerce, transport and communications, personal and community services).

At the time India achieved independence in 1947, only 18.3% of the population was literate. By 1981, the literacy rate improved to 43.4%. It was 56.4% among males and 29.8% among females. With reference to the population aged seven years and above, the 1991 census revealed that the literacy rate had improved to fifty-two percent (about sixty-four percent of males and thirty-nine percent for females).

The Directive Principles of the Constitution enjoined upon the Government was to provide free and compulsory education to all children up to the age of fourteen by 1960. Even after three decades, the fulfillment of the Constitutional Directive does not appear to be a feasible goal in the near future. Although India has achieved a gross enrollment level of 97.9% in 1987-88, because of the high drop-out rates, the number of children who complete elementary education continues to be small. Studies have shown that out of one hundred students admitted in Class I, only forty reached Class V and twenty-three went on to Class VII. Moreover the retention rates among the females were even poorer and only sixteen to eighteen percent of females enrolled in Class I reached Class VII. The drop-out rates among the scheduled castes, scheduled tribes, landless labourers, marginal farmers, and self-employed poor artisans are also high.

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The gigantic nature of the Indian educational system can be seen in the fact that in 1987-88 it served 144.5 million students at various stages and provided employment to 4.11 million teachers. Contrast this with the situation prevailing in 1950-51 soon after the country became independent, when there were a total of 23.9 million students in the educational system and 1.52 million teachers.

The national government has undertaken the development and expansion of education as one of its primary functions. The pyramid of our system is indicated by enrollment figures. As compared with 93 million students in Classes I-V in 1987-88, the number of enrolled in Classes VI-VIII falls to about thirty million and in Classes IX - XII further declines to about eighteen million. Only about four million students are enrolled at the University/College level. At various terminal points, sharp declines in enrollment may be due to drop-out rates, students forced by economic factors to take up employment, and parents being unable to pay the cost of education as students move up the ladder.

TABLE 1: Achievements at Different Levels of Education in India

	1950-51	1960-61	1979-80	1987-88
1. No. of pupils in Class I-V (millions)	19.2	35.0	71.6	92.9
2. Percentage of total population in age group 6-11	(42.6)	(62.4)	(82.7)	(97.9)
3. No. of pupils in Class VI-VIII (millions)	3.1	6.7	19.3	29.9
4. Percentage of total population in age group 11-14	(12.7)	(22.5)	(39.6)	(55.1)
5. No. of pupils in classes IX-XI/XII (million)	1.2	2.9	9.8	17.9
6. Percentage to total population in age group 14-17	(5.3)	(10.6)	(21.9)	n.a.
7. No. of pupils at the University stage (arts, science & commerce) (million)	0.36	0.89	3.14	3.81***
8. Percentage of total population in age group 17-23	(0.8)	(1.8)	n.a.	n.a.
9. Percentage of students reading science at University stage	37.8	28.9	23.0	23.5
10. No. of primary/Junior basic schools	209,671	330,399	482,476	543,677

TABLE 1: Achievements at Different Levels of Education in India (*continued*)

	1950-51	1960-61	1979-80	1987-88
11. No. of middle/senior basic schools	13,590	49,663	115,117	141,014
12. No. of high/higher secondary schools	7,288	17,257	48,905	71,305**
13. No. of teacher training colleges	53	478	1,283	485
14. No. of arts, science and commerce colleges	542	1,122	6,514	6,647***
15. No. of Universities	27	45	128	176*
16. No. of teachers in primary schools	537,918	741,515	1,328,700	1,616,685
17. Percentage of trained teachers in primary schools	(58.8)	(64.1)	(86.8)	(88.4)
18. No. of teachers in middle schools	85,496	345,228	835,608	1,014,162
19. Percentage of trained teachers in middle schools	(53.3)	(66.5)	(88.7)	(90.1)
20. No. of teachers in high/higher secondary schools	126,504	296,305	869,842	1,242,823
21. No. of teachers in University, arts, science & commerce Colleges	18,648	41,759	259,745	243,781*

Source: a) Compiled from Government of India, India 1990, pp. 79-80.

b) University Grants Commission, Annual Report for the year 1988-89.

*Includes deemed to be universities and institutions of national importance.

** Includes data of Intermediate/Prekegree/Junior Colleges/1 +2 higher secondary and high/higher secondary.

*** Figures have been taken from UGC, Annual Report for the year 1988-89.

However, the demand for higher education has led to a very fast growth of enrollment in Universities and colleges. While enrollment in higher education was just 0.36 million in 1950-51, it more than doubled during the first decade and was 0.89 million in 1960-61. In the subsequent twenty-seven years, it improved to 3.81 million by the year 1987-88, a four-fold increase. This was largely due to the fact that in the pre-independence period, very

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slow and rather tardy development of the educational system took place. To increase the educated manpower with a higher degree of skills and qualifications, the educational system was expanded.

To complement the formal system, the Central Board of Secondary Education, New Delhi set up an Open School in 1979. It was to provide an alternative channel for education and opportunity for school drop-outs, housewives, unemployed or working adults and in general to those who intended to avail of continuing education. From a small enrollment of 1,672 students in 1981-82, the number of students increased to 51,000 in 1989. Every state now has open-school students.

Since the formal system was unable to meet the rising demand for higher education, correspondence courses/distance education was developed as an alternative mode at the University stage. From a modest beginning in 1962 when a pilot project was taken up at Delhi University, the distance education system at the University level catered to a half-million students in 1990-91.

Education is an integral part of the country's development process. Continuous and concerted efforts during the last four decades have resulted in a fourfold increase in the total number of literate. The number of schools went up from 230,000 in 1950-51 to 756,000 in 1987-88 -- more than a three-fold increase. The number of universities also increased from twenty-seven in 1950-51 to 176 in 1987-88. With quantitative expansion of educational facilities, now the emphasis is shifting to qualitative improvement. The emphasis is also shifting from expanding the formal system to developing open learning/ distance education.

The first clear statement on distance education/correspondence courses was made in the Report of the Education Commission (1964-66) when it mentioned:

There must also be a method of taking education to the millions who depend upon their own effort to study whenever they can find time to do so. We consider that correspondence or home-study courses provide the right answer for these situations.

The correspondence or home-study course is a well tried and tested technique. Experience of correspondence courses in other countries of the world, such as the USA, Sweden, the USSR, Japan and Australia, where they have been used extensively for a long time, as well as the limited and brief experience at the University of Delhi, encourage us to recommend fuller exploitation of the method for a wide range of purposes. There is hardly any ground for the apprehension that correspondence courses are an inferior form of education than what is given in regular schools and colleges. Experience abroad and experiments in India have shown results which, on balance, tend to strengthen the case for correspondence education.

The Education Commission further stated:

It is obvious that these universities should not be the only agencies which should organize correspondence courses. Provision of correspondence courses should also be one important function of the extension service of developmental departments of government such as agriculture, industries, cooperation, health. This should prove to be a valuable method of conveying to the educated and the neo-literate alike such knowledge and improved techniques as the departments concerned wish to put across.

The recommendation of the Education Commission was incorporated in the National Policy of Education (1986) in the following statement:

...(13)Part-time Education and Correspondence Courses: Part-time education and correspondence courses should be developed on a large scale at the university stage. Such facilities should also be developed for secondary school students, for teachers and for agricultural, industrial and other workers. Education through part-time and correspondence courses should be given the same status as full-time education. Such facilities will smooth transition from school to work, promote the cause of education and provide opportunities to the large number of people who have the desire to educate themselves further but cannot do so on a full-time basis.

The objectives of distance education/correspondence education were enunciated in the guidelines issued by the University Grants Commission in 1974.

The objective of correspondence education is to provide an alternative method of education to enable a large number of persons with necessary aptitude to acquire further knowledge and improve their professional competence. Correspondence Courses are thus intended to cater for (a) Students who had to discontinue their formal education owing to pecuniary and other circumstances; (b) Students in geographically remote areas; (c) Students who had to discontinue education because of lack of aptitude and motivation but who may later on become motivated; (d) Students who cannot find a seat or do not wish to join a regular college or university department although they have the necessary qualifications to pursue higher education; and (e) individuals who look upon education as a life-time activity and may either like to refresh their knowledge in an existing discipline or to acquire knowledge in a new area.

The New Education Policy (1986), while asserting the role of education as a vehicle of human resource development, laid particular emphasis on distance education and open learning system. The New Education Policy (1986) stated:

Para 3.11 Lifelong education is a cherished goal of the educational process. This presupposes universal literacy. Opportunities will be provided to the youth, housewives, agricultural and industrial workers, and professionals to continue the education of their choice at the pace suited to them. The future thrust will be in the direction of open and distance learning.

Para 4.13 A vast program of adult and continuing education will be implemented through various ways and channels, including ... (g) programs of distance learning.

Para 5.35 The Open University system has been initiated in order to augment opportunities for higher education and as an instrument of democratizing education.

Para 5.36 The Indira Gandhi Open University established in 1985 in fulfillment of these objectives will be strengthened.

Para 5.37 This powerful instrument will have to be developed with care and extended with caution .

Para 6.6 In view of the present rigid entry requirement to formal courses restricting the access of a large segment of people to technical and managerial education, programs through a distance-learning process, including use of the mass media, will be offered. Technical and management education programs, including education in polytechnics, will also be a flexible modular pattern based on credits with provision for multipoint entry. A strong guidance and counselling service will be provided.

Para 8.10 Modern communication technologies have the potential to bypass several stages and sequences in the process of development encountered in earlier decades. Both the constraints of time and distance at once become manageable. In order to avoid structural dualism, modern educational technology must reach out to the most distant areas and the most deprived sections of beneficiaries simultaneously with the areas of comparative affluence and ready availability.

HISTORY AND BACKGROUND OF DISTANCE EDUCATION IN INDIA

Unlike the U.K., where the British Open University was established as a full-fledged

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independent institution to cater to the needs of distance education, in India correspondence courses were initially conceived as a sub-system in the conventional university set up. To establish their credibility the correspondence courses institutes/directorates adopted the same syllabi as the conventional universities. A pilot correspondence education project was introduced in Delhi University in 1962. The success of this experiment encouraged other universities to take up instruction by correspondence at various levels. In 1989, India had five Open Universities and thirty-five directorates/institutes attached to the conventional universities imparting instruction through distance education technique.

TABLE 2: Distribution of Enrollment of Distance Education Students Between Open Universities and Directorates Attached with Conventional Universities in India

	1988-89	1989-90
1. Andhra Pradesh Open University	37,435	34,644
2. Indira Gandhi National Open Univ.	21,986	31,663
3. Kota Open University	18,327	14,131
4. Yashwant Rao Chavan Open University	---	7,977
I Total for Open Universities	77,748 (17.1)	88,415 (16.5)
II Total enrollment in DE in conventional Universities	376,496 (82.9)	447,097 (83.5)
III Total Enrollment in DE	454,243 (100.0)	535,512 (100.0)

Source: University Grants Commission, Annual Report 1988-89, and the data compiled by UGC Office.

Data given in Table 2 reveal that distance education is mainly imparted by the Directorates/Institutes attached with conventional universities. In 1989-90, out of a total enrollment of 535,000 in distance education, the Open Universities accounted for just 88,000 and the directorates/ institutes with conventional universities accounted for 447,000. In relative terms, Open Universities catered to 16.5% of the total enrollment in distance education while conventional universities accounted for 83.5 % . However, these proportions are likely to change as the Open University Network matures.

The history of the growth of distance education in India has passed through a Pre Take-off stage, a Take-off stage, and a Drive Towards Maturity. The Pre-Take-off Stage during the decade 1962-70 saw the establishment of distance education institutions. This is also referred to as the germination stage. During this period, only four institutes were established, Delhi (1962), Punjabi University, Patiala (1968), Meerut (1969), and Mysore (1969). The 1960's were, therefore, a period during which the idea of distance education took birth and was in the process of establishing its roots in India. The movement of distance education had started, and was slowly and gradually gathering momentum so that it could enter the Take-off stage.

The Take-off Stage occurred during the decade 1970-80, when nineteen universities established Institutes/Directorates of Correspondence Education and this provided a major thrust to distance education. In addition, a number of institutes started post-graduate courses and some diploma/certificate courses. The new units of distance education established were Punjab and Himachal Pradesh (1971), Andhra and Sri Venkateswara (1972), CIEFL Hyderabad (1973), Patna (1974), Bhopal (Madhya Pradesh), Utkal (Orissa) and Bombay (Maharashtra) (1975), Madurai-Kamraj, Jammu, Srinagar and Rajasthan (1976), Osmania and Kerala (1977), Allahabad and SNDT Women (Bombay) (1978), Annamalai and Udaipur (1979). Distance education got a big push during the 1970's. More and more universities accepted distance education as an alternative technique of education and it was during this time that Institutes/Directorates of Correspondence/Distance Education started post-graduate and diploma/certificate courses, in addition to undergraduate courses. Most of these courses were a mere replica of the BA/BCom, MA/MCom., BSc. courses of the universities. In this sense, this phase may be described as an expansion phase of distance education within the framework of the usual university structure.

The Drive Towards Maturity began in the early 1980's. Until the end of the 1970's, distance education was a sub-system of the university system. There was an asymmetry in the process of decision-making. While teachers in the distance education Institutes were expected to operate the system, their role in decision-making was minimal. The University Dons and Heads of Departments decided the policies and distance education institutions did not have any functional autonomy. As a result, there was a strong demand made in several quarters to establish an Open University which should coordinate the work of all directorates in the country. It was also felt that an apex institution of this nature solely devoted to the development of distance education would be useful in strengthening the system. The Government of Andhra Pradesh made the momentous decision to establish Andhra Pradesh Open University in 1982. Thus, an autonomous institution of the level of a University was set up to develop distance education.

In September 1985, the Government of India decided to set up the Indira Gandhi National Open University. Among the objectives of the University, the following were the main focal points:

It shall be the duty of the University to take all such steps as it may deem fit for the promotion of open university and distance education systems and for the determination of standards of teaching, evaluation and research in such systems, and for the purpose of performing this function, the University shall have such powers, including the power to allocate and disburse grants to colleges, whether admitted to its privileges or not, or to any other university or institution of higher learning, as may be specified by the students.

After the establishment of Indira Gandhi National Open University, two more Open Universities were established: Kota Open University (1987), and Yashwant Rao Chavan Maharashtra Open University (1989). These four Open Universities were able to make good progress during the next six to seven years. Nalanda Open University (Bihar) though formally established in 1987, is yet to make a serious beginning in taking up distance education programmes. During the period 1980-91, the country witnessed the simultaneous growth of two streams in distance education, the Open University system comprising five open universities, and thirty-five distance education directorates attached to conventional universities.

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There is no pattern in the organization, quality-control and funding of Distance Education institutions in the country. Indira Gandhi National Open University (IGNOU) is funded by the Ministry of Human Resource Development and has no connection with the University Grants Commission (UGC). State Open Universities receive funds from the State Government and the UGC. Recently, some grant money has also been given by IGNOU to some state open universities. The Distance Education Directorates/Institutes working with conventional universities receive grants from UGC. Some directorates are working as surplus generating institutions in the country and thus, they do not depend on UGC grants. IGNOU has not been able to establish norms for the functioning of distance education institutions and thus quality-control in the present structure of distance education is conspicuous by its absence. At the Conference of the Vice-Chancellors held at Ahmedabad in October, 1990, it was decided to establish a joint body consisting of representatives of UGC, IGNOU and distance education Institutes/Directorates so as to coordinate the functioning of distance education institutions including Open Universities with a view to determine standards of teaching, evaluation and research in distance education. So far, this resolution has the status of pious sentiment and no concrete efforts have been made in this direction.

The two wings of distance education coexist with their advantages and limitations. The Open University System has much greater freedom to innovate courses, experiment with flexible designs and evolve its own system of examination. The biggest advantage of the system is its exclusive devotion to the development of distance education. On the other hand, the distance education directorates attached with conventional universities use the same syllabi and carry with them the stamp of well-established universities and thus are more acceptable to the public. Students studying in these directorates enjoy the benefit of transferability from the distance education to the conventional system and vice versa. The pattern of the syllabi of the Open University system does not provide the student this advantage of transferability. As a consequence, distance education directorates with the conventional system continue to attract students. The open university system has not been able to wean away students from the distance education Directorates. Both systems coexist and are likely to continue as such, given the complex structure of the Indian polity.

Despite the problems of structure, a rapid and more diversified pattern of distance education has developed during the 1980's. Besides the traditional courses like BA, BCom, MA, MCom, BEd, MEd, LLB/BGL, which were being offered by different distance education Institutions, a number of non-conventional diploma/certificate courses have been undertaken. Moreover, it is heartening to note that several universities offer a Science Course at the highest level viz., MSc in Chemistry, Physics and Zoology and MA/MSc course in Mathematics. Annamalai University has made the bold experiment of introducing job-oriented diploma courses in Concrete Technology and Design of Concrete Structure, Chemical Process, Instrumentation and Control, Automobile Technology and Computer Programming. Another bold experiment has been initiated in Panjabi University (Patiala) by the introduction of M.Phil course in English and Panjabi. Similarly, Madras University has introduced a PhD in English, History and Mathematics. All these developments indicate that distance education is breaking new grounds and thus the diversification introduced in distance education is an index of its drive towards maturity.

Table 3 provides information about the rate of growth in enrollment in the formal university system (consisting of University Departments and Colleges) and the distance education system. Between 1975-76 and 1982-83, enrollment in the formal university system

increased from 2.43 million to 3.13 million indicating an increase of 29.1% during the seven-year period, whereas enrollment in distance education rose from 64,000 to 197,000 indicating an increase of 207.6% during the same period. The compound annual growth of enrollment was 3.7% for the formal system, but it was of the order of 17.4% in the distance education system. It may be argued that this sharp increase in distance education enrollment may be due to a very low base in distance education. But the same story is repeated in the subsequent period of 1982-1983 and 1989-1990.

TABLE 3: Total Enrollment In Higher Education In India

	University Departments & Colleges	Distance Education (Universities & Institutions)	Total Enrollment
1975-76	2,426,109 (97.4)	64,210 (2.6)	2,490,319 (100.0)
1976-77	2,431,563 (96.8)	79,718 (3.2)	2,511,281 (100.0)
1977-78	2,564,972 (95.6)	119,163 (4.4)	2,684,135 (100.0)
1978-79	2,618,228 (95.1)	133,459 (4.9)	2,751,687 (100.0)
1979-80	2,648,579 (95.1)	136,699 (4.9)	2,785,278 (100.0)
1980-81	2,752,437 (94.3)	166,428 (5.7)	2,918,865 (100.0)
1981-82	2,952,066 (93.8)	193,691 (6.2)	3,145,757 (100.0)
1982-83	3,133,093 (94.1)	197,555 (5.9)	3,330,648 (100.0)
1983-84	3,307,897	n.a.	n.a.
1984-85	3,404,096	n.a.	n.a.
1985-86	3,570,897 (91.0)	355,090 (9.0)	3,925,987 (100.0)
1986-87	3,681,870 (91.1)	357,791 (8.9)	4,039,661 (100.0)
1987-88	3,814,417 (89.4)	402,720 (10.6)	4,217,137 (100.0)
1988-89	3,947,922 (89.7)	454,243 (10.3)	4,402,165 (100.0)
1989-90	4,246,878 (88.8)	535,512 (11.2)	4,782,390 (100.0)
ANNUAL GROWTH RATE OF ENROLLMENT			
1975-76 TO 1982-83	3.7	17.4	4.2
1982-83 TO 1989-90	4.4	15.3	5.3

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Enrollment in the formal university system rose from 3.13 million in 1982-83 to 4.24 million in 1989-90 -- an increase of 35.5% during the seven-year period, but against this, enrollment in distance education jumped from 197,000 to 535,000 during this period -- an increase of 171 %. The compound annual growth of enrollment during 1982-83 and 1989-90 in the formal system was of the order of 4.4%, and the growth rate of enrollment in the distance education system was 15.3% per annum. Consequently, the share of distance education in total enrollment in higher education improved from 2.6% in 1975-76 to 5.9% in 1982-83 and further to 11.2% in 1989-90.

For the purpose of analysis, the spatial distribution of distance education throughout the country has been classified into four regions, the Southern Region, Northern Region, Central and Western Region, and Eastern Region. Whereas the Southern region accounted for only 37% of the enrollment in 1975-76, its share has been gradually increasing and it rose to the level of 70% in 1982-83 and then it further rose to 71.5% in 1987-88 but dropped to 62% in 1989-90. The Northern Region came second in order of importance and its share initially was 58% in 1975-76, but it declined to around 21.4% in 1982-83. However it has started picking up again and its share stands at 27.8% in 1989-90. The Central and Western Region, which was a late starter, had a share of about 8% in 1989-90. Except for the state of Maharashtra, the other states of Madhya Pradesh and Gujarat have a very insignificant position so far as enrollment in distance education is concerned. Out of the total enrollment of 42,329, Maharashtra alone accounts for 40,094 students, or 94.7% of the total enrollment in distance education in the state. The Eastern Region had a total enrollment of 14,062 in 1989-90, or 2.6% of the total enrollment in distance education in the country. The only two states which have established distance education programmes are Bihar and Orissa. Considering the population of the Eastern Region and the enrollment in higher education in the Eastern Region, it may be stated that distance education in the Eastern Region is totally insignificant. West Bengal, Manipur, Meghalaya, Assam, Nagaland, Tripura, and Sikkim have yet to establish any institute in distance education.

Total enrollment figures for distance education departments in colleges and universities in each state and region have been worked out for 1989-90. The data reveal that as against the total enrollment of 1,427,000 in the Southern Region, distance education accounts for 303,000, or 23 % of the total. Similarly, the share of distance education in total enrollment in the Northern Region works out to be 11.2% (148,000 out of the total enrollment of 1,182,000). In the Central Region the share works out to be 3.6% of the total enrollment which is over 42,000 out of a total enrollment of 1,171,000. In the Eastern Region the share works out to be 1.6%, an enrollment of 14,000 in a total enrollment of 852,000. From this analysis it is obvious that the Southern Region had already reached the goal of the distance education fixed for 2000 AD. Taking individual states, distance education in Himachal Pradesh accounts for nearly 40% of the total enrollment, followed by Delhi 38.9%, Tamil Nadu 37.7%, and Andhra Pradesh 21.9%. All these states have achieved the goal of 20% fixed for enrollment in distance education in the higher education programmes by 2000 AD. The Central and Western Region, however, and the Eastern Region are still laggard, even though Maharashtra has made some headway. Among the laggards are Karnataka (7.6%), Kerala (4.6%), Haryana (17.6%), Jammu & Kashmir (5.9%) and Uttar Pradesh (1.8 %).

TABLE 4: Spatial Distribution of Enrollment in Higher Education in India (1989-90)

	College/ University Departments	Distance Education	Total	Share of Distance Education in total
Southern Region				
1. Andhra Pradesh	293,768	82,508	376,276	21.9
2. Karnataka	280,977	22,998	303,975	7.6
3. Kerala	162,347	7,848	170,195	4.6
4. Tamil Nadu	359,432	217,107	576,539	37.7
Sub-Total	1,096,524	330,461	1,426,985	23.2
Northern Region				
5. Delhi	114,365	72,829	187,194	38.9
6. Haryana	90,034	18,960	108,994	17.4
7. Himachal Pradesh	24,579	16,260	40,839	39.8
8. Jammu & Kashmir	31,518	1,985	33,503	5.9
9. Punjab	155,994	14,136	170,125	8.3
10. Rajasthan	196,079	14,131	210,210	6.7
11. Uttar Pradesh	570,023	10,359	580,382	1.8
(ii) Sub-Total	1,182,592	148,660	1,331,252	11.2
Central & Western Region				
12. Madhya Pradesh	301,738	2,106	303,844	0.7
13. Maharashtra	574,140	40,094	614,234	6.5
14. Gujarat	253,316	129	253,445	0.1
(iii) Sub-Total	1,129,194	42,329	1,171,523	3.6
Eastern Region				
15. Bihar	299,743	5,632	305,375	1.8
16. Orissa	90,629	8,430	99,059	8.5
Others*	448,196	---	448,196	---
(iv) Sub-Total	838,568	14,062	852,630	1.6
All India Total	4,246,878	535,512	4,782,390	11.2

*others include Assam, Manipur, Meghalaya, Nagaland, West Bengal, Tripura and Sikkim.

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TABLE 5: Regionwise Enrollment of Distance Education Students in India (1989-90)

Region	Enrollment	Percentage of Total
Southern Region		
1.Andhra Pradesh	82,508	15.4
2.Karnataka	22,998	4.3
3.Kerala	7,848	1.5
4.Tamil Nadu	217,107	40.5
Sub-Total	330,461	61.7
Northern Region		
5.Delhi	72,829	13.6
6.Haryana	18,960	3.5
7.Himachal Pradesh	16,260	3.0
8.Jammu & Kashmir	1,985	0.4
9.Punjab	14,136	2.6
10.Rajasthan	14,131	2.6
11.Uttar Pradesh	10,359	2.1
Sub-Total	148,660	27.8
Central & Western Region		
12.Madhya Pradesh	2,106	0.4
13.Maharashtra	40,094	7.5
14.Gujarat	129	0.2
Sub-Total	42,329	7.9
Eastern Region		
15.Bihar	5,632	1.0
16.Orissa	8,430	1.6
Sub-Total	14,062	2.6
Grand Total	535,512	100.0

Source: Compiled from the data provided by the UGC.

All these trends in spatial distribution highlight the fact that distance education programmes have not been developed in an even manner throughout the country, as envisaged in National Education Policy. There has been unbalanced growth in distance education. This underlines the scope for enlarging the distance education programmes in the hitherto neglected areas of the country.

One of the principal objectives of distance education is to help people who may take up careers to continue their education. The expansion of distance education in India during the last three decades reveals that this objective is being fulfilled to a great extent. The gender break-down of enrollment in distance education for the year 19A9-90 reveals that for the country as a whole males accounted for 61% and females accounted for 39% of the total enrollment. The proportion of females, however, in the Central and Western Region was much higher at 54%, but in the Eastern Region it was much lower at 28.2%. In the Southern Region and the Northern Region, the proportion of females was about 37% and

41 % respectively. Gender break-down thus reveals that distance education programmes have benefitted a very large segment of women and further expansion will also attract more women who have been deprived of distance education in the country. The states which have shown a very promising record are Haryana, Maharashtra, Delhi and Tamil Nadu. Among the laggards are Bihar (18.4%), Uttar Pradesh (24%), Kerala (24%), Rajasthan (25%), Himachal Pradesh and Orissa (28%).

TABLE 6: Breakdown of Distance Education Students in India (1989-90) Between Males and Females

Region	Males	Females	Total	% distribution	
				Male	Female
Southern Region					
1.Andhra Pradesh	54,862	27,646	82,508	66.5	33.5
2.Karnataka	15,728	7,270	22,998	68.4	31.6
3.Kerala	5,944	1,904	7,848	75.7	24.3
4.Tamil Nadu	131,977	85,130	217,107	60.8	39.2
Sub-Total	208,511	121,950	330,461	63.1	36.9
Northern Region					
5.Delhi	22,675	18,491	41,166	55.1	44.9
6.Haryana	7,427	11,533	18,960	39.2	60.8
7.Himachal Pradesh	11,661	4,599	16,260	71.7	28.3
8.Jammu & Kashmir	1,301	684	1,985	65.5	34.5
9.Punjab	8,819	5,317	14,136	62.4	37.6
10.Rajasthan	5,935	1,985	7,920	74.9	25.1
11.Uttar Pradesh	7,871	2,488	10,359	76.0	24.0
Sub-Total	65,689	45,097	110,786	59.3	40.7
Central & Western Region					
12.Madhya Pradesh	1,431	675	2,106	67.9	32.1
13.Maharashtra	17,937	22,157	40,094	44.7	55.3
14.Gujarat	112	17	129	86.8	13.2
Sub-Total	19,480	22,849	42,329	46.0	54.0
Eastern Region					
15.Bihar	4,596	1,036	5,632	81.6	18.4
16.Orissa	5,607	2,823	8,430	66.5	33.5
Sub-Total	10,103	3,859	14,062	71.8	28.2
Grand Total	303,883	193,755	497,638	61.1	38.9

Note: The break-up of 31,663 students admitted to Indira Gandhi National Open University and 6,211 students admitted to Kota Open University was not available. This explains variation of 37,874 students from the total of 535, 512.

Source: Compiled from data provided by the UGC.

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Enrollment figures of directorates with more than 10,000 enrollment reveal that ten Directorates/Open Universities accounted for eighty-three to eighty-five percent of the total enrollment during the period from 1982-83 to 1987-88. The situation did not change even in 1989-90 when thirteen Directorates/Open Universities accounted for 411,000, 84.4% of the total enrollment. This highlights the fact that on the one hand there is the Institute of Correspondence Courses, Madras with an enrollment of over 95,000 students and on the other hand, there are twelve Directorates/Institutes which have an enrollment of less than 2,000, and ten Directorates with an enrollment ranging between 2,000 to 5,000 students. Thus out of forty institutes imparting distance education in 1989-90, twenty-two can be considered as non-viable with an enrollment below 5,000. Efforts should be made to devise ways and means to make these non-viable directorates viable so that the tremendous demand for higher education can be met by them. A few attempts made by Utkal University, Bhubneshwar, and Himachal Pradesh University, Shimla, have helped them to become viable in 1988-89. Such attempts are welcome and need to be encouraged further.

TABLE 7: Total Enrollment in Ten Major Institutes of Distance Education with an Enrollment of an Enrollment of More than 10,000.

	1982-83	1985-86	1986-87	1987-88	1988-89	1989-90
ICC, Madras	9,615	67,968	78,123	92,737	104,370	95,074
ICC, Madurai-Kamaraj	69,036	75,866	67,143	52,894	44,658	46,863
DDE, Annamalai	25,397	39,311	41,554	43,398	48,434	48,638
SCC, Delhi	9,822	21,466	22,743	27,478	33,853	41,166
DCC, Himachal Pradesh	11,701	7,181	7,181	12,928	19,257	16,260
DCC, Jaipur/Kota O.U.	6,136	13,000	12,068	13,910*	18,327	14,131
DE, Bombay	6,603	12,283	11,807	11,234	7,592	15,935
DCC, Bombay	14,736	13,576	7,572	14,239	17,203	21,543
AP Open University	-----	27,629	28,745	36,448	37,435	18,524
DCC, Andhra Waltair	14,469	29,829	29,258	28,528	30,683	35,886
IGNOU, Delhi					21,986	31,663
Maharshi Dayanand Rohtak SNTD						14,039
Womens Bombay						11,605
Total	167,515 (84.8)	308,109 (86.8)	306,194 (82.6)	333,794 (82.9)	384,298 (84.0)	411,327 (84.4)
Total for all	197,555 (100.0)	355,090 (100.0)	370,496 (100.0)	402,720 (100.0)	454,243 (100.0)	487,349 (100.0)

* After 1987-88, DCC Jaipur has been merged with Kota Open University

TABLE 8: Frequency Distribution of Distance Education Institutions on the Basis of Enrollment Sizes in India

Enrollment Size	1982-83	1985-86	1986-87	1987-88	1988-89	1989-90
0 - 2000	12	16	16	12	11	12
2000 - 5000	1	6	5	8	8	10
5000 - 10,000	6	3	5	4	5	5
10,000 - 20,000	3	3	2	4	2	6
20,000 - above	2	6	6	6	8	7
Total	24	34	34	34	34	40

Although initially distance education was intended to serve those whom, because of economic and other handicaps, were unable to pursue their studies, over the years it has been found that as the regular university system was unable to accommodate the demand for higher education, correspondence courses/distance education institutions were used to accommodate the overflows of the conventional system. Consequently, in such institutions which provide undergraduate and post-graduate courses of the conventional system, the majority of the students fall in the range under 21 years of age. For the post-graduate-courses, the relevant age group is 21-24 and the remaining students fall in the age group 21-30. Age distribution data of the School of Correspondence Courses, Delhi, Directorate Distance Education Bombay, Directorate of Correspondence Courses, Chandigarh support the view that an overwhelming majority of students -- about 90% in the case of SCC, Delhi, 85% in the case of DDE Bombay and 76% in the case of DCC Chandigarh, are under 21 years of age. This is because the minimum age requirement for admission to BA/BCom/BSc in these universities is 17 or 18 years. Thus, the majority of undergraduate students are under 21 years of age.

In the Institute of Correspondence Courses, Bhopal, 8,000 students out of 10,000 are studying in Bachelor of Education. The Course requirement, besides insisting on BA/BCom/BSc degrees also requires three years of experience as a school teacher at secondary level or five years experience at primary. Consequently, teachers belonging primarily to the higher age group seek admission.

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TABLE 9: Percentage Distribution of Students by Age

Institution	Under 21	21 to 30	31 to 40	41 to 50	51 to 60	Over 60
1. School of Correspondence Courses & Continuing Education, Delhi	90.5	9.2	0.3	...	...	...
2. Directorate of Distance Education, Bombay University	85.0	10.0	5.0	...	...	..
3. Directorate of Correspondence Courses, Panjab University, Chandigarh	76.0	18.0	4.0	1.0	1.0	..
4. Institute of Correspondence Courses, Barktullah University, Bhopal	10.0	20.0	50.0	10.0	10.0	..
5. Department of Extension Education, Panjab Agricultural University, Ludhiana	12.0	49.0	25.0	14.0	...	..
6. YC Maharashtra Open University, Nashik	51.0	36.0	8.0	4.0	2.0	...

Source: Replies to Questionnaire

In Yashwantrao Chavan Maharashtra Open University, there is greater emphasis on professional courses. As a result a higher proportion of students are in the age group 21 to 30 (36%) and only 51% are younger than 21 years of age.

The Department of Extension Education, Punjab Agricultural University, Ludhiana, offers a course for farmers for which the eligibility condition is ability to read and write the local language. In this course, the range in various age groups of the farmer-learners is much wider. Only 12% are below 21 years of age, 49% in the age group 21 to 30, 25% are in the age group 31 to 40, and 14% are in the age group 41 to 50.

Dr. V. S. Prasad of Andhra Pradesh Open University, Hyderabad has studied the pattern of age distribution among the undergraduate students for the period 1983-84 to 1986-87. Dr. Prasad concludes that:

Age distribution shows that the majority of the students are between 20 and 25 years of age. Their percentage was 48 in 1983-84, 49 in 1984-85 and 50 in 1985-86. It has increased to 62 in 1986-87. Around 95% of the students are between 20 and 40 years of age. Though there are a few students of 60 years and above, their percentage is negligible. The mean age of the Open University students was 28 years in 1983-84, 1984-85 and 1985-86 and 27 years in 1986-87. It shows that the University has been attracting mostly young drop-outs from the formal system. The University has not been able to attract the middle aged and old people in any significant proportion. Obviously, the concept of continuing education has not enthused large sections of the population (3).

TABLE 10: Distribution of Andhra Pradesh Open University Students by Age

Academic Year	AGE GROUP							Total	MEN AGE
	20-25	26-30	31-35	36-40	41-50	51-60	Above 60		
1983-84	2,976 (47.9)	1,364 (21.9)	992 (16.0)	558 (8.9)	310 (4.9)	31 (0.5)	-- (100.0)	6,231	28
1984-85	5,544 (49.3)	2,516 (22.4)	1,629 (4.5)	980 (8.7)	544 (4.8)	25 (0.2)	6 (0.05)	11,244 (100.0)	28
1985-86	7,890 (50.2)	3,480 (22.2)	2,221 (14.1)	1,231 (7.8)	754 (4.8)	48 (0.3)	78 (0.5)	15,702 (100.0)	28
1986-87	12,000 (62.2)	3,208 (16.6)	2,077 (10.8)	1,149 (6.0)	676 (3.5)	55 (0.3)	106 (0.6)	19,271 (100.0)	27

Note: Figures in brackets represent percentages of total enrolment in each age group.

Source: Prasad, V.S., APOU Learner Profiles: A Case Study in Studies in Distance Education (1988), p. 127.

Data on rural-urban breakdown of students are much less firm because the classification does not follow the pattern of rural as defined in the Census. However, on the basis of the addresses of the residence of students, some directorates have classified the students as rural and urban. It is evident that Panjab Agricultural University, Ludhiana, which has started courses for farmers and peasant women, is in the real sense an institution which has been specifically working to meet the needs of the farmers by organizing non-degree programmes. In other universities, there is an urban bias, reflected by the emphasis on professional courses being offered by institutions like Birla Institute of Technology and Science, Pilani (Rajasthan) or Jawaharlal Nehru Technological University, Hyderabad.

In a large number of distance education institutions, the students continue to be highly urban. For instance, in the School of Correspondence Courses, Delhi, over 93% of the students come from Delhi. Thus, the Institute primarily meets the needs of the metropolis.

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Similarly, in Madras, over 50% of the students belong to the metropolitan city of Madras, and a large proportion are drawn from other urban centres. Students drawn from rural areas form a very small proportion of the total enrollment.

Although distance education was initially targeted towards employed students, over the years distance education has been used to accommodate the overflows of the conventional system. Consequently, in such courses which are being concurrently run by the distance education system and the on-campus system, the proportion of employed students has considerably declined over the years. In the School of Correspondence Courses and Continuing Education, Delhi, data reveal that between 1985-86 and 1990-91, the over-all proportion of employed students which stood at about 14% in 1985-86 declined to 4% in 1990-91 and that of the unemployed shot up from 86% in 1985-86 to 96% in 1990-91. The situation was extremely disappointing at the undergraduate level, in which the proportion of employed students fell from 13.3% in 1985-86 to barely 3.7% in 1990-91.

From the above data, two trends become evident. Firstly, there is a demand for postgraduate education because after higher secondary a large number of young persons are not able to find jobs. Most of the young complete their secondary at the age of 17, but minimum age for employment purposes is 18 years, so they must wait for one year before becoming eligible for employment. Quite a large number of parents thus prefer that their children continue to study after graduation. Distance education programmes are very convenient for this purpose. Secondly, in the employment market, a higher secondary degree is not considered sufficient qualification for most jobs, consequently it is not considered the terminal stage of education. This also compels quite a large number of young people to continue studying so that they can progress in the job market.

TABLE 11: Breakdown of Employed and Unemployed Students in the School of Correspondence Courses, Delhi

	1995-86			1990-91		
	Employed	Unemployed	Total	Employed	Unemployed	Total
1. B.A.(Pass and Hons)	1,503 (12.5)	10,486 (87.5)	11,989 (100.0)	1,201 (3.8)	30,658 (96.2)	31,859 (100.0)
2. B.Com.(Pass and Hons)	1,192 (14.5)	7,015 (85.5)	8,207 (100.0)	587 (3.4)	15,872 (96.6)	16,459 (100.0)
Total under-graduate (1+2)	2,695 (13.3)	17,501 (86.7)	20,196 (100.0)	1,788 (3.7)	46,530 (96.3)	48,318 (100.0)
3. M.A. & M.Com.	281 (22.1)	989 (77.9)	1,270 (100.0)	261 (12.9)	1,756 (87.1)	2,017 (100.0)
Total (1+2+3)	2,976 (13.9)	18,490 (86.1)	21,466 (100.0)	2,049 (4.1)	48,286 (95.9)	50,335 (100.0)

The occupational distribution of students indicates the small percentage of students who are employed. A study based on data supplied by the Directorate of Distance Education, Bombay reveals that 10% of the students are housewives, 30% are fresh students

and 60% are from clerical and administrative cadres. In such institutions where courses cater to the needs of employed students, the proportion of employed is higher. Courses like Bachelor of Education, which are targeted for untrained school teachers, and courses on business management for business executives are examples. This explains the situation in the Institute of Correspondence Courses and Continuing Education, Mysore, where 40% of the students are teachers.

Dr. V. S. Prasad has made a study of the occupational distribution of students, taken as separate groups in Andhra Pradesh Open University. His data reveal that a very high proportion of the male students are unemployed and this ratio has increased from 28% in 1983-84 to 61% in 1986-87. Although initially it was conceived that the University would mainly cater to the needs of the working population, later developments have shown that the University is largely engaged in accommodating the overflows of the conventional system. Manual and skilled workers accounted for about 15% of total students in 1983-84, but their proportion declined to 3% in 1986-87. The number of such students fell not only in relative terms but in absolute terms as well, from 793 in 1983-84 to 461 in 1986-87. Similarly, the proportion of agriculturists slumped from 8% in 1983-84 to a mere 1% in 1986-87. Students engaged in business also accounted for only 2% of the total student population. Public employees accounted for a big share of about 13% in 1986-87.

TABLE 12: Distribution of Students by Occupation : Male

Academic year	Manual workers	Skilled workers	Agri-cultuees	Busi-nessmen	Public employees	Teachers	Un-employed	Others	Total
1983-84	592 (11%)	211 (4%)	423 (8%)	264 (5%)	799 (15%)	317 (6%)	1482 (28%)	1271 (23%)	5296 (100%)
1984-85	352 (4%)	1042 (13%)	864 (10%)	505 (6%)	2590 (31%)	511 (6%)	1510 (18%)	1005 (12%)	8387 (100%)
1985-86	75 (1%)	259 (2%)	47 (0.4%)	117 (1%)	2674 (24%)	347 (3%)	6034 (53%)	1738 (15%)	11291 (100%)
1986-87	340 (2%)	121 (1%)	210 (1%)	299 (2%)	1690 (13%)	294 (2%)	8379 (61%)	2429 (18%)	13762 (100%)

Source: Prasad, V. S. APOU Learner Profile: A Case Study in Studies in Distance Education (1988), New Delhi, p. 127.

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TABLE 13: Distribution of Students by Occupation: Female

Academic year	Unemployed housewives	Manual workers	Public employees	Teachers	Others	Total
1983-84	640 (68%)	4 (0.5%)	97 (11%)	102 (11%)	92 (10%)	935 (100%)
1984-85	1419 (49%)	27 (1.0%)	418 (15%)	325 (11%)	668 (24%)	2857 (100%)
1985-86	3511 (79%)	2 (0.05%)	317 (7%)	339 (8%)	242 (5%)	4411 (100%)
1986-87	4807 (87%)	12 (0.2%)	245 (4%)	277 (5%)	173 (3%)	5509 (100%)

source: Prasad, v. s., op. cit., p.128

Analysis of the occupational distribution of female students in Andhra Pradesh Open University reveals that the highest proportion comes from unemployed housewives and this proportion has risen from 68% in 1983-84 to 87% in 1986-87. In other words, unemployed housewives comprise the majority of students. The other groups which take advantage of distance education are public employees and teachers. Manual workers form an insignificant proportion of the students.

Distance education institutes/open universities use English and the regional language of the state as the media of instruction. In Punjab, due to the peculiar nature of the State, three languages, English, Hindi and Panjabi are used as the media. The following table gives the media of instruction used by different universities at the undergraduate level. It may be noted that most of the Universities use English as the medium of instruction at the post-graduate level but some use the regional language as well.

TABLE 14: Media of Instruction used in Different DE Institutions

Name of the Institutions	Media of Instruction
1. Indira Gandhi National Open University, Dehli	English and Hindi
2. School of Correspondence Courses and Continuing Education, Delhi	English and Hindi
3. Directorate of Correspondence Courses Punjab University,	English, Hindi and Chandigarh Panjabi

TABLE 14: Media of Instruction used in Different DE Institutions (connued)

4. Institute of Correspondence Courses and Continuing Education, Mysore	English and Kannada
5. Directorate of Distance Education, Bombay	English, Hindi and Marathi
6. Institute of Correspondence Courses Bhopal	English and Hindi
7. Department of Extension Education, Punjab Agricultural University, Ludhiana	Panjabi
8. Institute of Correspondence Courses and Continuing Education, Madurai Kamraj University, Madurai	English and Tamil
9. Centre for Distance Education, Osmania University, Hyderabad	English and Telugu
10 YC Maharashtra Open University, Nashik	Marathi
11 Directorate of Distance Education, Annamalai	English and Tamil
12 Birla Institute of Technology and Science, Pilani (Rajasthan)	English
13 Institute of Correspondence Courses Madras University, Madras	English and Tamil

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In a developing country like India, the most dominant medium for approaching the students is the printed texts. This is supported by personal contact programmes of varying durations. In quite a large number of distance education institutions, these contact programmes are of seven to ten days duration. At Delhi University, the duration of PCP is the longest -- twenty days at the undergraduate and thirty days at the post-graduate level in a year. For professional courses, attendance is compulsory in contact programmes. The contact programmes are optional in other arts, science and commerce programmes. Between twenty-five to forty percent of the students avail themselves of this facility.

Indira Gandhi National Open University has established 170 study centres spread all over the country with 6,500 Counsellors who evaluate students assignments and give them guidance. This is a cost-heavy programme which the Directorate of Institutes of Distance Education attached with universities can hardly afford. Moreover, the effectiveness of the study centres has yet to be evaluated on the basis of cost benefit analysis. In practical subjects like science, engineering, management courses, computers, health and nutrition, the students are expected to undergo a compulsory course of practical. Very few

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directorates/institutes have developed their own laboratories for this purpose. The Department of Distance Education Annamalai has developed its own laboratories, but most of the other institutions hire the laboratories of regular colleges/university departments for the purpose. In some courses like BEd or MEd, where practice teaching and submission of lesson plan/models for teaching are essential, it is compulsory to attend a specified number of teaching sessions. Some institutions like the Correspondence Courses in Delhi, Punjab and Annamalai have set up study centres. These centres do not organise individualised face-to-face counselling but are centres for conducting group contact programmes and also for organising lending libraries for students. From a cost-benefit point of view, these study centres are useful. Annamalai University makes use of audio-visual material for science courses. Radio broadcast is being used by the University of Delhi, University of Punjab, University of Patiala, Madurai Kamraj University and the University of Madras. Recently, the Indira Gandhi National Open University has started making use of television for some of its courses.

The use of audio and video-cassettes was started in the 1990's by IGNOU, Kota Open University, Annamalai University and Punjab University. Since the production of video-cassettes is a more costly and complex process, many of the distance education directorates/institutions are unable to undertake it due to the financial constraints. The Open Universities, especially IGNOU and Kota Open University and to some extent Andhra Pradesh Open University, have recently begun producing video-cassettes. The use of television is also limited in view of the large variety of distance education courses introduced by different institutions. Since a separate TV channel exclusively devoted to distance education programmes is not available, the more useful strategy would be to develop video-cassettes. At present, however, this is the most under-developed aspect of distance education in India.

Another medium to contact the student is tutoring via mail, or instruction through written assignments popularly known as Student's Response Sheets (SRS). This is a very weak aspect of distance education in India. In professional courses where written assignments are compulsory and are a part of the system of evaluation, neither students nor teachers place emphasis on them. But in general courses of arts, science and commerce which cater to the bulk of the distance education students, written assignments are optional and are not integrated into the system of evaluation. Consequently, over the years the problem of handling written assignments has received very scant attention. Since the rhythm of correction and returning assignments could not be efficiently maintained, the system lost its importance and many directorates/institutes indicate that only three to five percent of the students submit written assignments. The work is delayed due to an inadequate number of Response Sheet checkers, who are poorly paid. Indira Gandhi National Open University stipulated a payment of Rs.7.50 per assignment for business management courses, but cannot sustain such a high cost for other courses. In some distance education institutions, attempts were made to make submission of 33 % of the Response Sheets compulsory, but the University later had to withdraw the condition. Consequently, written assignments were made optional. The fact remains that written assignments or tutoring by mail has continued to be a very weak area.

On the question of entry qualifications for BA/BCom general level courses, most of the institutions require that a candidate should have passed the Senior Secondary Examination (twelve years schooling) and should have a minimum age of seventeen years (Delhi) or

eighteen years (Bombay). The bulk of the distance education students undertake BA/BCom courses -- a general degree. This is referred to by distance education institutions as a regular scheme. Some directorates/ institutions like ICC, Madras, Annamalai, Madurai, Mysore and even Indira Gandhi National Open University do not insist on any entry qualifications, but have prescribed the minimum age for eligibility for the Open University Scheme. This minimum age is twenty years in IGNOU but twenty-five years in other universities. These students have to pass an entrance exam. After qualifying, the students must undertake a foundation course before they pursue the degree course syllabus. For post-graduate courses, some institutions require a BA/BCom degree, but in some cases, as in Delhi and Chandigarh, minimum eligibility conditions are prescribed. The University of Madras, Madurai and Mysore have introduced an Open University scheme prescribing thirty-five years as the minimum age for the purpose. For professional courses like BEd, there is a general insistence on three years teaching experience at the secondary school level or five years experience at the primary or other levels as the entry qualifications. Even in other professional courses, because the demand is much greater than what the distance education institutes/Open Universities can serve, the distance education system is selective and prescribes entry qualification. Alternatively, as is being done by IGNOU for its diploma in management, students are selected based on their performance on an entrance test and the number of slots available. IGNOU has also prescribed an entrance test for Diploma in Computers in Office Management because of the limited number of slots. In cases where the Open Universities perform- the function of extension education, the entry qualifications are kept to the bare minimum. For instance, the entry qualifications prescribed for a course for farmers being administered by the Punjab Agricultural University are a minimum age of seventeen years, ability to read or write in the local language, and practical experience in farming. Similar entry qualifications are prescribed by YC Maharashtra Open University which prescribes the age of twenty years for farmers.

The highlight of the survey of entry qualifications in distance education programmes is that wherever there are no limitations of places, entry qualifications are kept at a bare minimum so that the system can reap the benefits of economies of scale. But in cases where professional courses or courses requiring practical training have to be conducted, an entrance test is prescribed to select persons on merit.

Distance education institutions organize personal contact programmes which are in the nature of face-to-face teaching sessions. The purpose of these programmes is to provide direction to groups of students so that they can conduct their self-study more effectively. The teachers handling these sessions are advised to concentrate on areas of study which students find difficult to learn by themselves and need tutorial-support. In many directorates, subjects like Mathematics, Accounting, statistics, and- English, which are difficult to study without guidance, are given more teaching hours than other subjects.

The duration of personal contact programmes varies in different institutions. In most of the directorates, it is in the range of ten to fourteen days. Osmania University, Hyderabad provides face-to-face counselling for a short duration of two weeks. In addition, it has imposed a special charge of Rs.100 to provide weekend classes for twenty days per year. SCC, Delhi provides twenty days of personal contact programme (FCR) for undergraduate students and thirty days of PCP for post-graduate students per year. The perception of the students is that they rate the reading materials as the most dominant input and PCP is rated next in order of importance. The Open Universities following Indira Gandhi National Open

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University (IGNOU) emphasize individualized tutorial guidance at their study centres. But the distance education directorates/institutes attached to conventional universities, because of the heavy cost involved in this system, do not consider it feasible. Secondly, many distance educationalists have also questioned the effectiveness of the system of individualized guidance, especially in view of the limited nature of resources available for distance education in India. In some professional courses, intensive personal contact programmes are provided as compulsory for the students. For instance, ICC&CE Mysore provides an intensive PCP for a duration of sixteen weeks for the BEd course. Similarly, Jawaharlal Nehru Technological University, Hyderabad provides a compulsory contact programme of three to four weeks, along with a laboratory course for its BTech programme.

Quite a large number of students who study through the distance education mode belong to the weaker and disadvantaged sections of the society. They deserve even greater help to meet the cost of their tuition fee and other expenditures involved in attending personal contact programmes, and visiting study centres. Unfortunately, this aspect has not received adequate attention from the authorities of either on-campus universities or open universities. DCC, Chandigarh (Punjab) provides some concessions to dependents of employees of the University. Besides this, brother and sister, Defense Personnel, Scheduled Castes and Scheduled Tribes (SC & ST) concessions are provided. But all these taken together only comprise a small percentage of the total enrollment. POE Annamalai and ICC Madras grant fee concessions to SC and ST candidates as per government order, but IGNOU has not indicated any fee concessions for the poor and deprived categories. The School of Correspondence Courses and Continuing Education, University of Delhi has the singular distinction of granting fee concessions to 20% of male students and 25% of female students. Besides this, it operates the student-aid fund which is utilized to provide books to the poor and needy students. Some directorates/institutes of distance education do provide statutory exemption from tuition fees to students belonging to Scheduled Castes and Scheduled Tribes, while others do not provide even this facility.

In distance education institutions attached with conventional universities, the system of evaluation is the same as that of the respective parent university. Since most of the conventional universities do not undergo internal assessment as an integral part of the process of evaluation, neither do the distance education institutions attached to them. The entire evaluation is based on the annual examination conducted by the University. Written assignments, being optional, are not part of the evaluation. However, in some professional courses such as BEd or Diploma/Certificate in Library Science, written tests and practical assignments are required during the contact programmes and used for student evaluation. Similarly, in science and engineering courses, a laboratory work examination is conducted with the help of internal teachers and weighs in the evaluation of the student. For instance, Jawaharlal Nehru Technological University, Hyderabad has provided a weightage of 10% for assignments to be submitted, but it adds that the weight is kept at 10% in order to avoid undesirable tendencies. The final examination is conducted in each subject and it carries a maximum of 90% of the grade and to pass, the student must score at least 40% in the theory subject. The laboratory examination is normally conducted at the end of the contact programme and the student should secure 50% marks in the laboratory course. This process of evaluation is similar to the process of evaluation for a regular student. Indira Gandhi National Open University (IGNOU) has stipulated that 30% of the evaluation of the student will be based on assignments and 70% based on the final examination. The assignments are

either tutor-marked assignments or computer-marked assignments. Tutor marked assignments are to be submitted at the regional study centre and the computer marked assignments are to be submitted at the Headquarters. The tutors return the assignments to the students and send the assessment record to the Headquarters. Regarding computer marked assignments, students generally complain of lack of effective supervision and lack of feedback on the results. With all the short-comings attached with the system of internal evaluation, IGNOU has made an attempt to make internal evaluation based on assignments as an integral part of the evaluation- process.

since all distance education institutions are either universities established by Acts of state Governments or Central Government, their degrees are treated as equivalent to and comparable with non-distance institutions. In the case of distance education institutions attached to universities, the students follow the same syllabus and take the examination conducted by the university. Therefore, the equivalence of distance education to non-distance education students is well-established. Even transferability of students from the distance education institution to the non-distance education institution within the same university or to another recognized university is permitted. Open Universities legally enjoy the same privileges, although in their case, transferability from the OU to the on-campus system has yet to be established. Neither Open Universities nor the distance education institutions attached with conventional universities operate any placement cell for their students.

OPERATIONAL COSTS AND SOURCES OF FUNDING DISTANCE EDUCATION

In the "Study of Cost of Distance Education Institutes with Different size Classes in India" (1991), Ruddar Datt has grouped distance education institutes attached to universities under the two broad categories of Surplus Generating Institutions and Deficit Institutions. The analysis reveals that Madras, Annamalai, SNDT Women's University, Patna and Allahabad are surplus generating institutions. Profits generated from student fees are used either to create infrastructures for distance education students and/or to augment the resources of the Universities. In some cases, surplus money goes to maintain a skeleton staff (both academic and non-academic). Some directorates like ICE, Madras with an enrollment of over 94,000 students have only twenty-eight members on the teaching faculty. Similarly, very little is spent on student support services like the organization of personal contact programmes, library-cum-study centres, or the preparation of audio and video cassettes. Likewise, expenditure incurred on the preparation of reading materials, and the printing of lessons, is very low. Thus, these distance education institutions deliberately depress costs to generate surpluses.

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TABLE 15: Sources of Funding Distance Education (Rs. at current prices)

Institute	Year	Cost per student	Fee Income per/stu.	Surplus per student	State subsidy per student
SCC&CE Delhi	1988-89	584 (100.0)	320	--- (54.8)	264 (45.2)
DCC, Punjab	1988-89	1,832 (100.0)	601 (32.8)	---	1,231 (67.2)
DCC, (H.P.)	1988-89	620 (100.0)	404 (65.2)	---	216 (34.8)
ICE, Madras	1988-89	473 (100.0)	794 (167.9)	321 (67.9)	---
DCC, Patna	1988-89	368 (100.0)	447 (121.4)	79 (21.4)	
SNDT Women's Univ. Bombay	1988-89	242 (100.0)	341 (140.8)	99 (40.8)	
ICC&CE Allahabad	1988-89	495 (100.0)	435 (88.0)		60 (12.0)
DDE, Annamalai	1985-86	132 (100.0)	590 (447.0)	458 (347.0)	

Regarding the second category, there are distance education institutions that operate in a deficit, which is met either by the Centre (UGC) and/or the State Government. SCC&CE, Delhi, DCC Punjab, and DCC (H.P.) fall under this category. This is largely due to higher teacher-pupil ratios and higher non-academic staff ratios in these institutions. In Delhi, the fee income per student is as low as Rs. 320 and in DCC (H.P.) it is Rs. 404. Though fee income in DCC, Punjab is only Rs. 601 per student, with a low level of enrollment and a larger proportion of post-graduate students in total enrollment, the cost per student jumps to Rs. 1,832. Student-teacher ratio in 1988-89 DCC, Punjab was 63:1 as compared with 3,366:1 at ICE, Madras. Similarly, the student to non-teaching staff ratio was 297:1 at ICE, Madras and 35:1 at DCC, Punjab. Between these two extremes falls SCC&CE, Delhi in which the student-teacher ratio in 1988-89 was 360:1, and the student - non-teaching staff ratio was 139:1.

TABLE 16: Staff-Student Ratios in Selected Distance Education Institutions

	No. of students	Non-teaching staff	Students-non-teaching staff ratio	Teaching staff	Student teacher ratio
ICE Madras	1988-89 94,425	317	297:1	28	366:1
DCC Punjab	1988-89 7,719	210	35:1	122	63:1
SCC Delhi	1988-89 33,853	243	139:1	94	360:1

A broad break-down of expenditures into academic costs, non-academic salary cost and other costs reveals that academic costs vary from 1.7% of total cost in the case of ICE, Madras, 4.6% in the case of SNDT (Women) Bombay, up to 38.5% in the case of DCC, Punjab. Similarly, non-academic costs vary from 14.7% at ICE, Madras to 18.6% at DDE, Annarnalai, up to 37.8% in the case of DCC, Punjab. Thus, the salary component of expenditures varies widely from about 16% in the case of ICE, Madras to 33% at SND,T Bombay, to about 50% at DDE, Annamalai, increasing to 64% in the case of SCC&CE, Delhi, and peaking at 76% in the case of DCC, Punjab.

TABLE 17: Percentage Distribution of Components of Costs in Various Distance

		Academic cost	Non-Academic cost	Total salary	Other costs	Total
ICE	1988-89	1.7	14.0	15.7	84.3	100.0
Madras						
SCC&CE	1988-89	30.9	33.3	64.2	35.8	100.0
Delhi						
DCC,	1988-89	38.5	37.8	76.3	23.7	100.0
Panjab						
DDE	1987-88	21.5	35.2	56.7	43.3	100.0
Bombay						
SNDT	1988-89	4.6	28.5	33.1	66.9	100.0
Bombay						
DCC	1988-89	30.9	34.2	65.1	34.9	100.0
H.P.						
DDE	1986-87	31.3	18.6	49.9	50.1	100.0
Annamalai						

Thus, the non-salary component in different institutions varies widely from about 24% in the case of DCC, Panjab to about 84% in the case of ICE, Madras. A major conclusion is that the absence of uniform salary expenditures creates different environments in which distance education institutions in India operate. This analysis of cost distribution does not infer, however, that institutions where the salary component is low spend more money on student support services. For this purpose, expenditure per student must be examined.

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TABLE 18: Cost per Student Across Distance Education Institutions (Rs. at Current Prices)

Institution		Academic cost per student	Non-Academic cost per student	Other Costs per student	Total Cost /student
ICE, Madras	1988-89	7.94	63.75	384.88	456.57
DDE, Annamalai	1986-87	53.88	32.00	86.01	171.89
SCC&CE, Delhi	1988-89	180.33	194.64	209.35	584.00
DDE, Bombay	1987-88	41.83	68.77	84.61	195.21
DCC, H.P.	1988-89	191.84	211.79	216.21	619.84
SNDT, Bombay	1988-89	11.25	68.86	260.68	340.79
DCC, Panjab	1988-89	705.60	692.56	434.44	1832.60
ICC&CE, Allahabad	1988-89	---	328.50	106.70	435.20

The table above provides information about cost per student in different institutions at current prices. Other than for DDE, Annamalai, the figures are for 1988-89, and can be considered comparable. The wide divergence in academic cost per student ranges from a low of Rs. 8 in ICE, Madras, and Rs. 11 in SNDT, Bombay, to the high expenditure of Rs. 706 in DCC, Panjab. In between are SCC&CE, Delhi with an academic cost per student of Rs. 180, and DCC (Himachal Pradesh) spending Rs. 192. Similar variations occur in non-academic cost per student, ranging from Rs. 32 for DDE, Annamalai to Rs. 64 for ICE, Madras and Rs. 69 for DDE Bombay at the low end, to Rs. 195 for Delhi, Rs. 212 for DCC (Himachal Pradesh) up to Rs. 329 for ICC&CE, Allahabad and the highest figure of Rs. 693 for DCC, Panjab. If the total cost per student is low, then the availability of funds to improve the quality of printing, to provide a longer duration of PCP, and to expand the library-cum-study centres becomes restricted. This is the situation with regard to DDE, Annamalai and DDE, Bombay. But since cost per student in Delhi, Punjab and Himachal Pradesh is quite high, other costs per student, in the form of support services, can also be maintained at a high level. Again, this reinforces the conclusion that the variable policies regarding distance education institutions followed by different universities determine the components of costs of distance education.

C. R. Pillai and C. G. Naidu of the Indira Gandhi National Open University have made a study of the cost analysis of Distance Education of IGNOU (1991) for the year 1989-90. To determine the annual unit cost per student, the total revenue expenditure of the University for the year 1989-90 was reclassified into direct costs and indirect costs. The direct costs were further sub-divided into three groups, as fixed costs, semi-variable costs, and variable costs since the University conducts programmes of varying duration, it became necessary to standardise the student unit. Normally, a student undertakes four courses (or thirty-two credits) per year. The study assumed that the number of credits offered per year for an

undergraduate course was thirty-two, for a diploma course it was twenty-four, and for the certificate programme it was twelve to sixteen. Assigning a weight of one for an undergraduate full year course, the diploma course was given a weight of 0.75 and the certificate course a weight of 0.50. The weighted student number calculated for 1989-90 was 45,859, while actual student enrollment was 56,020.

TABLE 19: Conversion of Total Student Strength into an Annual 32-Credit or Equivalent Student Number in 1989-90 for IGNOU.

Name of the Programme	No. of equivalent student offered in a year	Weighting	Actual student enrolment	Weighted student number 1989-90
(1)	(2)	(3)	(4)	(5) = (2) x (3)
1 Bachelor Prog. Programme	16	1.00	13,249	6,374
2 Certificate in Field & Machine	12	0.50	2,122	1,061
3 Bachelor Degree programme	32	1.00	29,121	29,121
4 Bachelor of Library & Information Science	32	1.00	1,523	1,523
5 Diploma in Management	24	0.75	6,839	4,990
6 Advanced Diploma in Management	24	0.75	1,791	1,343
7 Diploma in Distance Education	24	0.75	1,229	922
8 Diploma in Creative Writing in English	24	0.75	442	330
Total	32	1.00	56,020	45,859

Source: Cost Analysis of Distance Education: IGNOU 0991)

IGNOU incurred a total recurrent cost of Rs. 83.9 million to impart instruction to 45,859 student units. Unit cost per student, therefore, worked out to be Rs. 1,830. The distribution pattern of this unit cost is Rs. 323.4 (17.7%) per student on fixed direct costs, Rs. 272.8 (14.9%) per student on semi-variable costs, Rs. 597.1(32.6%) on variable costs, and Rs. 636.7 (34.8%) on indirect (overhead) costs. The data reveal that the total fixed (direct plus indirect) costs accounted for more than half the total recurrent costs, at 52.5%, while the rest of the expenditure was accounted for by variable and semi-variable costs.

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The study has also separated the salary and non-salary component of costs. Out of the total cost of Rs. 83.9 million, the salary component accounted for Rs. 30.6 million (36.5%) and the non-salary component Rs. 53.3 million (63.5%). In absolute terms, the salary component per student was Rs. 667 and the non-salary component was Rs. 1,163.

The study has not categorised salary costs further into academic costs and non-academic salary costs, but a rough estimate on the basis of conversation with IGNOU authorities indicates that about 40% of the salary costs are for academic costs in the form of salary of academic staff in the Schools and other Divisions, including payments made to counsellors in regional services divisions. In other words, IGNOU spends about 15 % of its total recurring costs on academic staff, 21.5% on non-academic salaries and 63.6% on non-salary items. The major non-salary items include printing and publication at Rs. 19.2 million, and common services and general charges at Rs. 18.3 million. These two items account for over 70% of non-salary component.

A comparison of unit costs of distance education between IGNOU and SCC & CE Delhi reveals that whereas the unit cost in IGNOU was Rs. 1,830 in 1989-90, it was Rs. 584 in SCC & CE Delhi in 1988-89. Thus, the ratio of unit cost per student between these institutions operating in the same metropolitan area is 3:1. In other words, the School of Correspondence Courses, Delhi provides instruction to three students for the same expenditure as that which is provided by IGNOU to one student. It is true that IGNOU spends about Rs. 4 million on the Communication Division which has helped to provide sixty-three video and ninety-three audio programmes during 1989-90, but this accounts for only 4.8% of the total expenditure. Even if this expenditure is deducted, it appears that IGNOU has a very heavy cost structure of distance education.

TABLE 20: Per Student Annual Recurrent Costs IGNOU
Number of Students = 45,859 (1989-90)

Sl. No.	Cost Item	Total Cost (Rs. in thousands)	% to total	Cost per student (Rs)
A. FIXED COSTS				
1.	Academic Schools	9,633	11.48	210.06
2.	Distance Education Division	413	0.49	9.00
3.	Communication Division	4,025	4.80	87.77
4.	Printing & Publication	761	0.90	16.59
	Total Fixed Costs	14,032	17.67	323.42
B. SEMI-VARIABLE COSTS				
1.	Admission	473	0.56	10.31
2.	Student Record Maintenance Services	1,224	1.46	26.69
3.	Student Support Service	9,767	11.64	212.98
4.	Material Distribution	367	0.44	8.00
5.	Examination Processing	677	0.81	14.76
	Total Semi-Variable Costs	12,508	14.91	272.75
C. VARIABLE COSTS				
1.	Student Record Maintenance Service	684	0.82	14.92
2.	Student Support Service (Counselling)	2,100	2.50	45.79
3.	Material Distribution	1,998	2.38	43.57
4.	Examination Processing	3,434	4.08	74.66
5.	Printing & Publication	19,175	22.85	418.43
	Total Variable Costs	27,381	32.63	597.07
D. INDIRECT COSTS				
1.	Library & Documentation	269	1.03	18.95
2.	General Administration	5,156	6.14	112.43
3.	Common Services & General Charges	16,344	19.48	356.40
4.	Estate Management	1,896	2.26	41.34
5.	Miscellaneous & Other Expen.	4,932	5.88	107.55
	Total Indirect Costs	29,197	34.79	636.67
Total Annual Recurrent		83,918	100.00	1829.91

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Sl No.	Cost head	Salary	% of total salary	Non-salary	As% of non-salary exp.	Total	As % of total exp.
1	Schools	8,013	26.20	1,628	3.48	9,633	11.48
2	Distance Education Div.	413	1.35	...	...	413	8.49
3	Regional Services Div.	18,664	34.86	1,203	2.26	11,867	14.14
4	Communication Division	2,247	7.35	1,777	3.33	4,024	4.80
5	Computer Division	852	2.79	1,856	1.98	1,988	2.27
6	Admission Division	472	1.54	...	...	472	0.56
7	Evaluation Division	677	2.21	3,424	6.42	4,101	4.88
8	Library & Documentation Division	469	1.53	400	8.75	869	1.04
9	Printing & Publication Division	761	2.49	19,175	35.96	19,936	23.76
10	Material Distribution Division	367	1.20	...	...	367	0.44
11	General Administration	5,156	16.86	...	...	5,156	6.14
12	Estate Management	498	1.63	838	1.57	1,336	1.59
13	Common Services & general charges	...	...	18,342	34.39	18,347	21.86
14	Other charges	...	...	5,493	10.30	5,493	6.55
Total		30,589	100.00	53,320	100.00	83,917	100.00
Percentage		36.45	...	63.55	...	100.00	...
Per student cost		667.02	...	1162.87	...	1829.89	...

STATUS OF DISTANCE EDUCATION INSTITUTIONS IN INDIA

India has a variety of institutions working in the sphere of distance education, with the Indira Gandhi National Open University established in 1985 as the apex institution of the country. It has been assigned a dual role. It aims

to advance and disseminate learning and knowledge by a diversity of means, including the use of any communication technology, to provide opportunities for higher education to a larger segment of the population, (and) to encourage the Open University and distance education systems in the educational pattern of the country and to co-ordinate and determine the standards in such systems.

IGNOU on the one hand performs the same functions of dissemination of knowledge as any other university and on the other, it acts as the University Grants Commission for the open university and distance education systems in the country.

In the second tier, there are state level open universities -- Andhra Pradesh Open University, Kota Open University, Yashwantrao Chavan Maharashtra Open University and Nalanda Open University (Bihar). These universities have the power to initiate new courses, introduce flexibility in their design and operation, to prescribe their own eligibility conditions consistent with the philosophy of open education, and to innovate their own system of evaluation.

On a third level, there are Distance Education Institutions as part of universities. Some of them have been accorded the status of university departments. Examples of these are DCC Chandigarh (Punjab), DCC Patiala (Punjab) and ICC Srinagar (J & K). Then there are distance education institutions without the formal status of a college or a department. Examples are DCC Bombay, ICC Bhopal, Centre for Distance Education, Osmania University, Hyderabad, ICC&CE Mysore, ICC&CE Madurai, ICC Madras, and Directorate of Distance Education, Annamalai. These institutions are controlled by the University Syndicate/Executive Council but have a non-descript status in the University system. Some of them are self-financing, such as the Centre for Distance Education, Hyderabad. Some are surplus generating and the surplus is generally transferred to the University, and in other cases, the deficit is met by the University from its resources. SCC & CE, Delhi has the status of a University-maintained College. Birla Institute of Technology and Science is a private self-financing university.

MAJOR STRUCTURAL NPEDIMENTS IN THE GROWTH OF DISTANCE EDUCATION

India is undergoing a period of transformation. The establishment of Indira Gandhi National Open University has given great impetus to distance education, and has fulfilled the long-felt need to have an apex institution to act as a pace setter and coordinating institution for others throughout India. This has also spurred several state governments to establish Open Universities, while others are in the process of considering doing so. All this is being done by creating separate university structures. Neither the experience of the existing directorates is being made use of, nor is an effort made at either the State level or the Central level to include the existing directorates/institutions within the Open University structure. Instead, more prestigious institutions, with bigger and better resource-bases and full freedom to develop their own syllabi and methods of instruction, are being created as Open Universities.

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They are being developed as competitive institutions. In other words, a dual structure is developing, with independent open universities to impart distance education, and Correspondence Courses/Distance Education Institutes attached to universities. The structure of these universities inhibits the freedom of the various distance education institutions operating under their control. Following are some of the identifiable impediments in their development.

Distance education institutions are treated as mere appendages of universities. Boggled down by their own problems, very little time is devoted by the Universities (Academic Councils and Executive Councils/Syndicates) to promote this technique of education. Here, discussions occur as to whether a particular course is amenable through the distance education mode, while discussion in open universities focuses on innovations to be made.

The university structure exhibits a kind of asymmetry with regard to distance education. Most educators believe that for a good and meaningful system of education, the operators of the system should play a dominant role in all levels of decision-making, from its conception to its development. In the context of distance education, operators, the teachers and the non-academic staff of the Institutes/Directorates, are hardly associated with the process of decision-making. The top University administrators make decisions without understanding the difficulties, problems, and feasible solutions pertaining to daily operations. This asymmetry destroys all initiative for devising innovations. It underlines the absence of autonomy in decision-making surrounding the operation and development of distance education.

This lack of academic autonomy creates further problems. Since distance education institutions do not have their own independent faculty empowered to frame syllabi, prescribe conditions of eligibility for different courses, and innovate a system of evaluation relevant to distance education, the distance education institutions have no option but to follow the syllabi of the conventional universities and adhere to the rigid frame of their eligibility and examination conditions. There is a common view that distance education can have credibility only if the students have experienced the same course content and examinations as conventional universities. Although this is a naive view, no effort has been made to dispel it.

Lack of financial autonomy is another serious impediment in the development of distance education. Many universities are promoting distance education in the belief that their institutions are a good source of generating surpluses which may then be used for other university infrastructures and programmes. Although the UGC's directive impressed upon the universities to use the resources generated through distance education institutions only to promote facilities for distance students, this directive is not followed. Most of the programmes for developing distance education fail due to lack of financial support. This does not imply that there should be no limit on the financial autonomy of distance education institutions, but if it is decided that cost per student in distance education shall be one-third of the unit cost in conventional universities, then a provision should be made in the State Budgets for distance students. Within this framework, distance education institutions should enjoy financial autonomy.

Administrative autonomy is also not available to many distance education institutions regarding the recruitment of staff, the purchase of equipment, and the development of a separate set of norms consistent with the system of distance education in terms of leave, hours of work, and schedule of vacation. Excessive dependence on the formal system acts

as a serious impediment to the proper functioning of distance education institutions. The real problem is that the traditional on-campus votaries of formal education still consider distance education to be a sub-standard, second-best system. This attitude acts as a major impediment to the growth of the distance education institutions in the conventional university set up.

The important question is about the future of distance education in India. It is quite clear that the demand for higher education is so high that the formal system as well as the distance education system taken together cannot meet it. Thus, it is the supply constraint which determines the rate of growth of distance education. It is therefore imperative that distance education institutions, whether in the form of more State Open Universities or Directorates attached to universities, be established.

The second relevant question is about the choice of courses to offer. There is no doubt that the demand for continuing education is a reflex of the prevailing unemployment situation in our country. To gain advantage in the job market, the unemployed try to acquire higher degrees. This partly explains the mad rush for BA, BCom, BSc, MA and MCom courses. There shall obviously be a continuing demand for conventional courses, which distance education institutions must strive to meet. Besides this, there are a good number of job-oriented and professional courses which promise better careers for the young. There are courses which upgrade already-acquired skills, thereby enabling students to earn better pay scales. The rush for BEd courses is a case in point, because these courses promise better pay scales for untrained teachers, and post-graduate courses enable them to become eligible for post-graduate trained teacher scales. Courses in Business Management are another high demand area, and wherever such courses have been offered, there has been no dearth of students. Quite recently, distance education directorates have begun to offer a very large number of certificates and diploma courses. Notable among them are diplomas in Journalism, Tourism and Hotel Management, Public Accounting, Public Administration, Industrial Relations and Personnel Management, Financial Management, Office Organisation and Procedures, International Marketing, Marketing Management, Project Management, Production Management, Labour Law and Labour Welfare, Management of Public Enterprises, Banking, Distance Education, Library and Information Science, Automobile Technology, Child Health and Family Welfare, Teaching of English, as well as Certificate courses in Hindi, Urdu, English Improvement, and Kannada.

There is still scope for undertaking science courses. Some universities such as Annamalai, Andhra Pradesh (Waltair), A.P. Open University, Madras, Madurai and Osmania have experimented with BSc and MSc courses. They are also experimenting with some engineering courses. All these experiments are welcome because they help students from the weaker segments of our society to get training in areas which have been closed to them by the formal system.

Another question pertains to the quality of distance education. Critics charge that this system is sub-standard. They even allege that reading materials prepared by many directorates are comparable to cheap notes. Moreover, no worthwhile student support services have been developed. These criticisms have an element of truth to them, but are largely biased and impressionistic statements. It is one thing to say in the National Policy Statement that the state intends to encourage distance education as an alternative and relatively less expensive system, but the UGC budget has never allocated any of its funds for distance education. The Seventh Plan did not make any specific provision for the development of distance education. Now by the end of the Eighth Plan, nearly fifteen to

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seventeen percent of students will be receiving instruction through the distance education system. It seems reasonable that at least 10% of the total funds designated for higher education be specifically allocated for distance education.

There is a great need to develop infrastructures in the form of Learning Resource Centres throughout the country. Besides the reading materials, support services in the form of personal contact programmes, personal guidance to students, use of audio as well as video cassettes and library services are needed so that the distance learner can acquire deeper understanding of the subject. For this purpose, the UGC should establish one hundred Learning Resource Centres throughout the length and breadth of the country. The average cost of a composite learning resource centre would be in the range of Rs. 5 million. If in the first instance, at the thirty-five headquarters of distance education directorates, these centres are created and later they are spread to one hundred district headquarters, then by the end of the Eighth Plan, the country will have a network of Learning Resource Centres. Students belonging to any Open University or Distance Education Institution/Directorate should be permitted to become members of the Learning Resource Centres. Such a network of facilities can help to enrich distance education.

Similarly, infrastructure in the form of video-production centres shall have to be established in at least ten major Distance Education Directorates, which account for 83 % of total enrolment. This requires provision of funds to acquire equipment as well as to create teams of experts to work with academics to produce video-cassettes directly related to the courses of study.

Reading materials continue to be the most important component of the distance education system. There is a need for a closer review of the reading materials produced by different directorates. Subject experts drawn from different universities should be associated with the preparation of reading materials. The payment for writing reading materials should be modelled on the pattern of Indira Gandhi National Open University. Editing of these materials written by subject experts to make them self-learning materials should be undertaken. All these efforts at qualitative improvement require experts to prepare the reading materials and expenditure on the preparation of reading materials as a kind of investment.

In conclusion, with the expanding demand for higher education, the enrollment capacity of the distance education system will have to be increased so that by the year 2000 it can absorb two million students. This requires strengthening and enlarging the network of Open Universities and Distance Education Directorates. The UGC, the Indira Gandhi National Open University, and the representatives of the directorates of distance education should pool their resources to meet the rapidly growing demand for distance education. State support has been sadly lacking. It is time that both the UGC and the Planning Commission allocate at least 10% of both plan and non-plan budgets for providing financial support to distance education institutions in the Eighth Plan, to be raised to 15 % in the Ninth Plan. This will allow the distance education system, which is less expensive and relatively cost-effective, to become a better, more efficient system of learning.

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INDONESIA

*Dr. Suciati
and
Atwi Suparman*

THE NATIONAL CONTEXT FOR DISTANCE EDUCATION

The establishment of a university devoted to distance education was specifically mentioned in the Fourth Five-Year Development Plan (1984/5-1988/89).

During the Fourth Five-Year Development Plan the Universitas Terbuka will be developed and consolidated as a new undertaking to extend the opportunity for higher education, by distance education system (printed material, mechanical and electronics medium). Also, face-to-face interaction will be periodically used, to make lecturer's time efficient and to maintain the quality of education .

In 1983 the Department for Education and Culture appointed a committee to prepare for the establishment of Universitas Terbuka. The committee had only ten months to complete their task. Though the committee could not accomplish perfect results within such a short time, the Universitas Terbuka officially began to operate on September 4, 1984. The President of Indonesia issued a letter No. 41 as a formal base for the institution of Universitas Terbuka.

During the Fifth Five-Year Development Plan (1989/90- 1993/94) the country ' s budget is estimated to be 107.5 trillion rupiah. This is an increase of 126.3% from the Fourth Five-Year Development Plan, which was 47.5 trillion rupiah. The first year budget (1989/90) was 13.1 trillion rupiah, increasing 47.2% from the last year of the Fourth Five Year Development Plan. The Fifth Five Year Development Plan is divided into eighteen sectors. Education is in the sector for Education, the Development for Young Generation, the National Culture and the Belief in One God. The budget for this sector is 16,981 million rupiahs, which constitutes about 16% of the national budget (in the Fourth Five-Year Development Plan it was 11,539 milliard rupiahs). The budget for higher education is 5,772 milliard rupiah, which constitutes 34% of the budget for the sector mentioned above.

Indonesia is the fifth most populous country in the world. In 1988 the population was about 175.6 million. It is estimated to be about 192.9 million in 1993, with 1.9% annual rate of increase. The population is unevenly distributed. Sixty percent of the total population is concentrated on Java Island, which comprises only seven percent of the land. Approximately eighty-five percent of the Indonesian population is Muslim, and 7.5 percent is Christian. The remainder includes Hindus, Buddhists, Confucians and Animists.

The age group which normally seeks higher education is the 19-24 age group. This age group numbered about 20 million in 1989/90. In 1991/92 the number is expected to increase to 21 and a quarter million, and is estimated to be 22 and half million in 1993/94.

The size and uneven distribution of population has created social and economic problems. Even though Indonesia has begun to industrialize herself, most of the people still live on agriculture. Almost eighty percent make their living from the land. With decreasing

landholdings because of population pressure, people from villages move to the neighboring cities, looking for jobs. Unfortunately, these people do not have many employable skills, therefore they have to accept low-paying jobs or stay unemployed.

The economy has been improving. With a GNP of \$480 per capita, however, Indonesia is still considered a low-income country (World Bank, 1989). Improving the economy of the individuals and the country requires motivated, competent people, willing to work and with a desire to achieve. Moreover, the Sixth Five-Year Development is intended to be the initial phase for national take-off to a just and affluent society, which needs a competent and dedicated workforce.

The Republic of Indonesia's Constitution of 1945, article 31, clause 1, mandated that all people are entitled to an education. By this mandate, the government developed a national system consisting of formal and informal education. The formal education is implemented as a standardised structure which includes the primary, secondary, and tertiary levels, whereas the informal education is done through various programs coordinated by the Directorate for Nonformal Education, under the auspices of the Department for Education and Culture.

The primary school enrollment rapidly increased in 1974 when the windfall from oil prices made the expansion of primary school possible. By 1986, 95 percent of the population between 7-12 years old was enrolled at primary schools (Setijadi, 1986). The expansion of primary schools pushed the expansion of secondary education. Secondary education is divided by two levels, junior and senior secondary (high) schools, each takes three years to finish. At the junior secondary levels, most schools are general secondary schools. At the senior level, the majority are general secondary schools, but vocational and technical schools also exist. The oldest and biggest university is the Gadjah Mada University, which was established during the revolution for independence. The student population is about 25,000. The official transfer of the sovereignty from the Dutch in 1950, resulted in another university, the University of Indonesia. From then on the government established public universities in most capital cities in the provinces. Today there are forty-four public universities, one open university and 665 private institutions of higher learning (Setijadi, 1986).

The Universitas Terbuka relies heavily on the public postal service for registration and material distribution. The postal service national network is reliable and has the capability of reaching remote areas. The Universitas Terbuka and the Postal Service signed an agreement for cooperation in 1984. The prospective UT students can buy and send completed registration forms, pay the registration fee, order the modules or pay for the examination fee at the post office. There are 2,500 post offices providing these services throughout Indonesia.

The Universitas Terbuka needs the service of telecommunication, particularly the capability of using the domestic satellite "Palapa" for telephone lines, facsimile and computer network. An agreement was signed for the cooperation between the UT and the Corporation.

Language of instruction in Indonesia is Bahasa Indonesia. It is also the official and national language. Indonesia consists of close to 200 ethnic groups with their own languages or dialects. Soon after the declaration of independence in August 1945, Bahasa Indonesia, which is a dialect of the Malay language, was adopted as the national language. Today it has developed into a language capable of delivering new thoughts and development.

HISTORY AND BACKGROUND

Beginning with the Third Five-Year Development period, high school graduates rapidly increased. since then, each year the number becomes greater. In 1988/89 there were 600,200 graduates, and only 336,30.0 (52%) were admitted into higher education. In 1989/90, only 336,500 (51.8%) graduates were admitted out of 744,800. The number of graduates not admitted continues to accumulate.

The inadequate capacity of the existing universities to meet the demand for higher education has become a national problem. The combined capacity of the public universities and the private universities can only accommodate about fifty percent of the graduates, which leaves the remainder the ordeal of waiting for the following year to find a place in a university or find employment. Finding employment, however, is not easy. They often do not have the necessary skills nor knowledge for the available jobs. Moreover, there is a shortage of jobs in general. Unemployed and unoccupied young people is a source of great concern. It is not only that their time and energy are not used constructively and productively, but also that they may easily fall into unfavorable behavior.

Establishing new universities to cope with the insufficient provision for higher education was not considered a proper solution, because it requires, among other things, new buildings and recruitment of faculty, which takes time. The emergency of the situation called for a solution which could be implemented quickly.

Another problem which led to the implementation of distance education is the need for further education for people who are already on the job. For instance, the government implemented a crash program to upgrade junior secondary teachers to teach secondary students, a population which rapidly increased as a result of compulsory elementary education. These young and new teachers were educated for two years (after high school) and allowed to teach. Obviously, lack of experience and skills undermined their teaching. The government was responsible for providing them with training and further education to improve their teaching ability and qualifications. The problem was that they could not leave their post for further education since they could not find a replacement. Providing education without requiring them to leave their job was the solution, and distance education did just that. Teachers are not the only people who fall into this category. Employees of other government or private enterprise also need further education while still staying at work.

The Indonesian Government decided to establish a university which would use distance education to serve a large number of students. In this system students would study independently using printed material (modules) supplemented with audio and video programs. In this way they can study whenever, and wherever, they want to. This arrangement provides flexibility and freedom to the students.

Universitas Terbuka (UT) was formally established in September 1984 by President Suharto, the Head of state in Indonesia. The opening ceremony was broadcast nation-wide by state television. A letter was issued by the President as the base for the establishment of UT. This letter included the considerations which lead to the establishment of UT, and the organisational structure.

The Indonesian experience with distance education is quite extensive. Distance education was known in Indonesia since 1950 with the establishment of teacher education using correspondence (Suparman, 1990). In 1951 The Ministry of Education and Culture established School (Radio) Broadcast. About the same time a private education institution

in Semarang introduced a correspondence course for accounting. Training for teachers by correspondence was coordinated from Bandung. During the First Five-Year Development program radio was used to improve the quality of elementary schools. Distance education was also implemented to provide education for elementary and secondary students in rural areas. These programs were known as SD Pamong and SMP Terbuka (The Open Secondary School).

In 1981 an In-service training program was developed and coordinated by the Directorate General for Higher Education. These programs intended to improve the quality and qualification of secondary teachers by distance education. A similar program was developed for university lecturers, called Akta V. These programs were then integrated into the Universitas Terbuka.

The main characteristics of distance education in Indonesia is a heavy reliance on printed material as the main medium of instruction, complemented by face-to-face tutorials and some use of audio/video instruction.

Most distance education programs in Indonesia are government sponsored. The government pays for the material development and provides support for the implementation. In some cases, the government even pays for the participants' tuition. In these cases the participants are usually assigned by their organisation to attend the program. Generally, the participants pay for the tuition and the instructional material.

The Universitas Terbuka follows an open recruitment system. The program is available for anyone who holds a higher education certificate or any other associated qualification. There is no entrance examination for admittance.

THE LEGAL STATUS OF DISTANCE EDUCATION

Universitas Terbuka is a public university with the same status and support from the government as other public universities. This legal status was confirmed in the Letter issued by President Suharto. The intent for establishing Universitas Terbuka is also written in the Fourth Five-Year Development Plan.

OVERVIEW OF CURRENT SITUATION

Airns and Objectives of Universitas Terbuka

The Universitas Terbuka was established to meet three needs. First, it is intended to increase access for higher education, especially for high school graduates. The response from high school graduates, however, is not satisfactory. In the first year of implementation, 1984, enrollment for the Universitas Terbuka was nearly 200,000 but only 54,035 were accepted. In the second year, however, the new enrollment dropped to 46,910, and continually dropped to about 20,000 in the third year (Table 1).

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TABLE 1: New Student Enrolment since 1984

YEAR	1984	1985	1986	1987	1988	1989	1990	1991
Number of New Students	54,035	46,910	20,051	8,109	9,041	5,739	14,354	3,903*

Sometimes the decrease seemed related to the student's inappropriate concept of how to study at the UT. Distance education depends almost entirely on students initiative, independence and discipline. External help is minimal. Students study on their own, with only limited opportunity for face-to-face interaction with fellow students or teachers. Obviously, high school graduates are not used to studying independently. They still need regular interaction with fellow students and teachers. To transfer the perception of conventional learning to independent learning takes time and experience. Knowing how to teach oneself instead of being taught needs to be learned and experienced by students before they are comfortable with distance education.

Some registered students also registered at other universities. They want to learn two competencies simultaneously, hoping that when they graduate they will be more marketable when seeking a job. A second purpose is to provide further education for those who are already working, to improve their skills and knowledge in their field or indeed to learn new subject matter. Most UT students fall into this category. Some are new in a job and others are already at the managerial level. Research on UT student motivation identified a wide variation of social economic background. Some students were from lower working class and hoped to find a better job by graduating from UT. At the other end of the spectrum, there was the owner of an export company who was also its executive director, with a degree from a university in Germany. He took management courses at UT with the aim to learn management skills. These instances show the diverse backgrounds and motivations of UT students. A third purpose is to improve the quality of teachers and other professionals. This includes elementary, secondary and tertiary teacher education levels. The programs for secondary teachers and university lecturers had already started before UT was established and were later integrated into UT. Beginning in 1991 UT is to be assigned to provide on-the-job training for 1 million elementary teachers within 10 years. This program will be implemented as a joint effort with the Directorate General for Elementary and Secondary Education. UT also develops programs for the employees of the Department for Telecommunication and the Department of Agriculture.

Control, Organizational and Management Structure

The Universitas Terbuka is attended by students from throughout Indonesia. UT central office is located in Jakarta, the capital city of Indonesia. For implementing the programs and reaching students from throughout the country UT has thirty-two Regional Offices. The central office is responsible for general policy making, and other activities such as curriculum and instructional material development. The material development includes printed material as well as audio cassette and experiment kits. They are also responsible for test item bank

development and processing the examination results, as well as conducting research and social service. Furthermore, they have responsibility for organizing and providing library service, as well as managing and maintaining the university administration. The regional office's main responsibility is to provide and arrange service for the student learning process, which includes managing student affairs; managing tutorial; administering the examination; maintaining academic administration at the regional office; maintaining the administration of the regional office; and organizing activities at the locations for tutorials and examinations: In order to facilitate students, the regional offices place service locations in remote but accessible areas. Currently there are seventy-seven cities where students can take exams, and sixty-six cities where they can attend tutorial.

At the central office, the Universitas Terbuka is directed by the Rector, assisted by Four Vice Rectors. The First Vice Rector is responsible for academic affairs, research and social service. The Second Vice Rector is responsible for general administration, while the Third Vice Rector is responsible for Student Affairs and Program Operation. The first Rector has held the position for two terms, between 1984 and 1992. The Universitas Terbuka has four Faculties or Departments: The Faculty for Economics, The Faculty for Social and Political Sciences, The Faculty for Mathematics and Natural Science, and The Faculty for Teaching and Education Sciences. The Faculty is directed by the Dean, assisted by three Assistant Deans. There are three centers: the Center for Research and Social Service, the Center for Media Production, Information and Data Processing, and the Center for Examination Processing and Administration. In addition, there is the Bureau for Academic Administration and Student Administration, and the Bureau for General Administration. The regional office is directed by a head and assisted by an administration and academic assistants.

Financing Distance Education

The finance for Universitas Terbuka comes from three budgets: the routine budget, the development budget which includes foreign aid, and the education support budget. In addition, UT also receives an operational and maintenance budget from the government. The education support budget is obtained from student fees. The budget for UT during 1989/1990 was about 12 million rupiah.

A study conducted by the USAID for the Government of Indonesia indicated that the total cost per student of UT is much less than that of public or private universities. Based on data (Isfarudi, Tian Belwati & Sutnsno, 1988) the unit cost of UT student is about 54% of public university student and 44% of private university. With regards to annual cost, UT costs less than conventional universities which means that UT is cheaper and more efficient. However, this does not necessarily mean that a UT student pays less than a conventional student .

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TABLE 2: Comparison of Unit Cost Between Non-Distance and Distance Education

Sector	Total Annual Cost Per Student (US\$)		UT
	Public	Private	
All Fields of Study	175.00	214.88	95.01
Four Fields of Study Equivalent to UT's	206.00	255.00	95.01

Note: * Data excludes cost for land.

Source: Indonesia Education and Human Resources, Sector Review. Vol. I, Ministry of Education and Culture, Indonesia, and The United States Agency for International Development.

Universitas Terbuka and the Institute for International Research conducted a study on the efficiency of secondary teacher education in Indonesia. They compared cost per credit hour of the Institute for Teacher Training (IKIP) and of UT. The cost per credit hour at IKIP was Rp. 57,000, and at UT was Rp. 33,500. A UT student, however, pays Rp. 6000 more than an IKIP student, because a UT student must pay 77% of the cost, whereas an IKIP student is only charged 33%. This is caused by the government's expectation of a high recovery cost from working students. This phenomena is not unique to Indonesia, but also happens in Thailand and other distance education institutions throughout the world (Djalil, 1990).

Geographical Coverage

The scope of Universitas Terbuka is nationwide. It covers all provinces in Indonesia, including East Timor.

Instructional Systems

The Universitas Terbuka uses printed material (modules) as the main instruction, supplemented with audio cassette for certain courses. The audio cassettes contain the highlights of the associated material and examples to provide clarification. In the past the television programs were broadcast twice a month, but since 1989 they have been reduced to once a month for twenty-five minutes. UT broadcasts television programs using the state television channel. This program presents a general lecture for a particular topic or is used for question and answer. The percentages of media used are printed material 96%, audio tape 2%, TV 0.5%, radio 0.5%, face-to-face tutorial 0.5%, teleconference using CB and the satellite system 0.5% (Mikdar & Karyani, 1988).

The writing of the instructional material (modules) is contracted to lecturers from other universities, who are experts in their fields. After the manuscripts are finished, they are then developed into final products by the UT staff for implementation. UT has already developed about 500 courses, constituting 3500 modules (Suparman, 1990).

In the early times, tutorials were conducted twice a semester for each course. It appeared that some courses were attended by a large number of students, while others only had a few participants. It was later decided to provide tutorials, based on students' request.

By the second year, student study groups proliferate. Students of the same year program taking similar courses take the initiative to form study groups, where they discuss the instructional material and socialize. Some students consider that study groups not only help them solve their learning problems, but also give them a sense of belonging to UT. This is especially true for younger students. But, there are students who cannot afford to attend study groups or tutorials, because of time constraints imposed by their jobs. Instead, they study independently.

Research Activities

By 1990 UT staff conducted 206 research studies. The quality of some studies, however, is questionable. This low quality generally is due to inadequate research knowledge and skills. Universitas Terbuka has 265 academic staff and 543 administrative staff. As part of their academic function, academic staff are required to conduct research. However, the majority is not yet well equipped to conduct research. The center for Research and Community Service, and the Inter University Center conduct workshops in developing research design. These workshops include conceptual basis and the conduct of research.

Enrollment

The total enrollment between 1984 and 1991 is 199,542, including active students, passive students and graduates. Current registration for 1991 is 30,721. For the last three years registered students ranged from 30,000 to 36,000 students per semester. There are several reasons for the fluctuation of the number of registered students. Sometimes, students motivation to learn at UT is subject to the success they achieve. Perception of the difficulty level of the instructional material and the result of their exams influence their motivation and decision to re-register. In other cases, students find it difficult to finance their study. Therefore, they take a break from reregistering.

About seventy-five percent of UT students are male. Seventy-four percent already have a job. The composition of UT students by age group (in 1988) is 19-24 age group (25.7%); 25-30 age group (36.7%); 31-36 age group (20.4%); 37-40 age group (10.9%); 41-45 age group (3.8%); 45 and over (2.5%).

Since 1984 the Universitas Terbuka has graduated 14,565 students. In May 1991, 1346 students graduated. In comparison, the Universitas Indonesia, the second biggest university in Indonesia, graduated 1,056 S1 level students in August, 1991 (Kompas, 1991).

Of the time needed for program completion, most UT students finish their program within the appointed time. Mikdar et.al (1988) indicated that a student taking a S1 level program is required to finish 146-150 credit hours, which is normally completed in four years by regular education, Based on a preliminary observation, a student typically takes 12 credits per semester (17 weeks effective). Therefore, a student will need about 6-7 years to complete a S I program. However, experience showed that all students taking a S 1 program finished it within 3-4 years. This is an outstanding performance, considering that the students have jobs, and therefore, must juggle their time and energy. It should be noted, however,

Note: * Data excludes cost for land.

that individual performance is not yet of satisfactory level. Most graduates achieve average or below average; less than 15 percent achieve B or A level.

International Affiliation and Cooperation

The Universitas Terbuka is a member of the Asian Association of Open Universities. The UT sends representatives to and presents papers at its annual conference. Even before its establishment, the Universitas Terbuka received assistance from many foreign agencies. The assistance is in the form of technical assistance, grants for research purposes and personnel development.

To develop a plan for the establishment of UT, USAID/Jakarta in cooperation with USAID Science and Technology/Education Division has provided the assistance of eight consultants. Their report (1983), entitled "Universitas Terbuka: Initial Planning Considerations" has been used as a base for future planning efforts. USAID also provided assistance for research studies. A research project to study The Cost Effectiveness of Teacher Training in Indonesia was funded by Bridges USAID. since the beginning of UT, the Canadian International Development Agency (CIDA) has provided assistance in the form of consultancy for developing UT systems. The consultants were, and are currently, involved in developing registration, distribution, examination and research procedures. CIDA also provides scholarships for UT staff to undertake master and doctoral programs in Canada. The Universitas Terbuka did several research studies assisted by The Institute for International Research and Educational Development Centre Inc. A research project entitled Research Design of Social Marketing Survey for Indonesia's Open University received assistance from the agency, which is located in Newton, Massachusetts, USA. The cooperation between the Universitas Terbuka and The International Development Research Centre (IDRC) includes research activities, especially with regard to tutorial systems. With assistance from The United Nations Educational, Scientific, and Cultural Organization (UNESCO), the Universitas Terbuka conducted a research study on the utilization of communication technology for distance education. World Bank finances the activities for the Second University Development Project. This project aims to improve the quality and the productivity of higher education in general. The Universitas Terbuka is responsible for developing and supervising an implementation unit, called The Inter University Centre for Instructional Development Activities. This project sends ten university academic staff to study for master or doctoral degrees, and hundreds of other professionals to attend short courses abroad or at home. This project also organizes various seminars, workshops and short courses on different aspects of instructional activities and material development.

Growth and Expansion

The Universitas Terbuka forms partnerships with other organizations in providing on-the-job education/training. In these programs the organization provides for the teaching/learning process, whereas the Universitas Terbuka provides the learning material and the certification. For example, working with the Indonesian Chambers of Commerce and The Department for Labour Forces, the Universitas Terbuka has developed an entrepreneurship training program for industry, business and service. This program began in July 1989 in order to train high school graduates. The Universitas Terbuka also works with the Telecommunication Public

Service to provide on-the-job training for their field personnel.

Today the Universitas Terbuka is entrusted to develop learning and examination material for elementary teachers' further education program. The Department for Education and Culture requires elementary teachers to have a Diploma II level of education. At present the majority hold a Teacher Education School (SPG) certificate which is comparable to a high school certificate. The number of teachers to be educated is one million within a period of ten years. The Directorate General for Basic and Secondary Education is responsible for its implementation, which includes such tasks as organising tutorials and administering the examination. These are important considering the number of teachers involved in the program.

In the future the Universitas Terbuka intends to develop programs on a contract basis with other agencies. One possible target is cooperating with the Department for Internal affairs, to train their personnel. If this materializes it will be another major task involving many personnel as participants, not to mention the supporting system which will have to be prepared.

A joint-ventures program is considered more beneficial than UT's regular program. The participants for the earlier program are clearly identified. They are usually assigned by their department, and sometimes given scholarships. Therefore, the Universitas Terbuka can be certain in anticipating the student intake number and in planning for the implementation. In the regular UT program there is no way of verifying the number of enrollments. The partnership follows the pattern that UT is responsible for developing instructional material, as well as the examination and certification, whereas the partner agency organizes the teaching-learning process.

Besides Degree programs, UT also develops certificate programs leading to a degree. In the future, certificate programs will be further developed and expanded to address more specific needs.

Problems and Issues

Thus far the Universitas Terbuka has not been able to attract and retain fresh high school graduates to study at the UT. In 1989/90-1993/1994, 2,233,700 new students are expected to enter higher education, with about 819,900 students at public universities, 1,346,800 at private universities, and the rest at Service Schools. The potential number of students for UT is large. In 1988, however, the students comprised only about 12% of the total UT student population. High school graduates usually prefer to study at universities which provide face-to-face teaching and learning activities. Moreover, they want to belong to a visible university and to intensively socialize with fellow students. The activities of the Universitas Terbuka are visible only during the tutorials or examinations, but for the rest of the time students study on their own. A marketing project aimed at high schools in the Jakarta region has improved fresh high school graduates intake in Jakarta, but it did not improve the national percentage.

Distance education has proved to be valuable to a large number of people in Indonesia. Working or non-working students, who do not have the opportunity to pursue higher education or further education, are given one by attending Universitas Terbuka.

The efforts of Universitas Terbuka influence other universities. The modules written by Universitas Terbuka have been widely used by lecturers and students from other

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universities. The modules are considered of a high quality which represents the effectiveness of the UT instructional material.

Nevertheless, the quality of Universitas Terbuka can still be improved, especially pertaining to student achievement. They need to have the desire to excel, not just pass. This calls for a change in student attitude as well as UT capability to provide better service to students. Universitas Terbuka still has a long way to go to be truly effective.

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APPENDIX

The following is a list of research studies conducted by the staff of the Center for Research and Public Services. The titles can be classified into four categories.

A. Research Studies on Program Development

1. A study of UT Program Development: The result of the institutional questionnaire and professional questionnaire.
Researchers: Wihardit and Tosaini.
Completed: 1984.
2. The relationships between the characteristics of module writers and the completion of writing.
Researcher: Wihardit.
Completed: 1984.
3. A study of Media Utilization for the development of Universitas Terbuka.
Researchers: Subandiyo.
Completed: 1985.
4. A report on the monitoring of tutor training by the SISDIKSAT (Satellite Education System).
Researcher: Ittihad.
Completed: 1985.
5. A Study of audio and television program development at Universitas Terbuka.
Researchers: Tosaini and Wihardit.
Completed: 1985.
6. Identification of specific skills for tutors.
Researcher: Tosaini.
Completed: 1986.
7. Analysis on the improvement of instructional modules for S1 program.
Researchers: Mahdi and Djalil.
Completed: 1985.

B. Studies on the Support System

1. A descriptive study of the tutorial system at Universitas Terbuka.
Researcher: Ittihad.
Completed: 1984.

2. Research on Tutorial System of the Open University of Indonesia: Factors Affecting Student Learning Outcomes.
Researchers: Djalil, Subandijo, Isfarudi, and Librata.
Completed: 1987.

C. Research Studies on the Efficiency and Effectiveness of Distance Learning System.

1. Overview of the utilisation of satellite system for higher education in Indonesia.
Researcher: Wihardit.
Completed: 1985.

D. Research Studies on the Development of Organization

1. The perception of the regional office staff regarding the central office service.
Researchers: Tiesnawati, Tamat, Kesuma, and Mahdiarti.
Completed: 1986.
2. A study of the public university support to Universitas Terbuka.
Researchers: Kesuma, Tamat, Tiesmawati, ar,d Mahdiarti.
Completed: 1986.
3. The Society's perception of Universitas Terbuka.
Researchers: Mahfud, Mahdi, Zainul, and Tosaini.
Completed: 1986.
4. A preliminary study of the potential for joint efforts between UT and private universities.
Researchers: Zainul, Mahdi, and Mahfud.
Completed: 1987.
5. Report on the private costs and expected benefits of teacher training by the Open Learning University of Indonesia.
Researcher: Djalil et al.
Completed: 1989.

This list does not include doctoral dissertations and Master's theses topics.

THE ISLAMIC REPUBLIC OF IRAN

Hassan Zohoor

The demand for post-secondary education in the Islamic Republic of Iran has been increasing because of the growth of the population, linked to economic and social developments.

Considering the rapid expansion of the school systems, the population growth, and the achievement of economic and social developments, the higher education system has had to be expanded. To maintain a quality delivery system; new universities have been established.

In 1986, all the medical and sciences universities separated from the conventional universities which had been operated under the Ministry of Culture and Higher Education. These universities have since been administered under the new Ministry of Health, Treatment, and Medical Education. The other universities, as before, have been administered under the Ministry of Culture and Higher Education.

In recent years, the number of higher education institutes and universities has been considerably increased. All Iranian people, as well as the government and private organizations, have always been extremely concerned about the development of the higher education systems in the country. In 1990, the total number of universities including all state and private non-profit universities rose to sixty, and there were seventy-three higher education institutes also in operation that year.

In 1971, a correspondence school was established at Abooreihane Birooni University and then expanded to two schools. In 1977, Azad University of Iran was founded on a distance education system. In 1980, all the scientific activities of the distance education system in Iran ceased operation, and the remaining students were distributed among the nondistance universities and higher education institutes.

In 1987, Payame Noor University (PNU), the only specialized distance education system in the Islamic Republic of Iran, was established. In 1990, this University enrolled more students than any other state university in the country. It is the pioneer for the distance education system after the Islamic Revolution. It provides programs leading to Bachelor degrees.

In spite of the serious efforts that were made between 1983 and 1990, the rate of admission at state universities and higher education institutes, excluding distance education and teacher-training programs, has been about 7% of the total applicants. This figure increases to about 10% when teacher-training institutes admission is included, and rises to about 13% when distance education admission is also included.

The rate of national admission, for all state and private non-profit universities rose to about 25% of the total applicants who sat for the National Entrance Examination in 1990. It should be noted that the theology post-secondary schools admission is not included in the figures.

In 1990, the total number of students in the higher education system, including all state and non-profit universities and institutes, rose to about 645,000 students. As a result, there were roughly 1100 students in every 100,000 of the population. On the other hand, over 452,000 students of the total 7.4 million population aged eighteen to twenty-four were

enrolled at the existing universities and institutes. In other words, there were 6100 students in every 100,000 of population in this age group.

NATIONAL CONTEXT FOR DISTANCE EDUCATION

Since the economy and social development are both accelerated by cultural promotion, the essential role of providing instruction to qualified applicants is undeniable. To represent the enormous increase in the demand for post-secondary education in the country, new universities have had to be established. Considering that the establishment of a quality face to face teaching system is more expensive than the distance teaching system, from the perspective of the economy, expanding the latter was preferred.

Despite the steps that the government took in the past decade, the net annual population growth rate has just begun to decrease from 3.8%. However, the population of the Islamic Republic of Iran exceeded 57,000,000 in 1990.

The medium of instruction at the Payame Noor University is Persian Language. The English Language is the only foreign language which is now used in the distance teaching system.

The face to face education system and the distance education system are the two predominant higher education systems in the country. State as well as non-profit universities and institutes and teacher-training centres are based on the face to face education system. Payame Noor University is the only university which is based on the distance education system. The traditional education systems of theology schools is not included in these categories.

The mass media and telephone systems in Iran are efficient, but the telephone is not generally available in rural areas. Since the efficiency of the postal service is very high, the Payame Noor University mostly uses this system for distributing its instructional materials among its study centres. The mass media are also used by the university, but not as major media of instruction.

HISTORY AND BACKGROUND

Establishing a distance education system has had a serious effect on the promotion of cultural and scientific qualification in the society. It creates opportunity for working people, housewives, and people who live in outlying areas to continue their education, it helps to overcome the problems of staff shortage, and finally it is a more cost-efficient system compared with the face to face system. The Supreme Council of Cultural Revolution approved the legal status of distance education in the country.

In 1971, a Correspondence School, founded on the correspondence teaching system, was established at Abooreihane Birooni University. After a while, the Correspondence School expanded to two independent schools, the School of Sciences and the School of Humanities and Social Sciences. In 1976, several new regional study centres, or regional colleges, had been established. The Schools had fifty-six full-time faculty members, in five fields of study, Banking, Economics and Rural Cooperation, Persian Language, Post Services, and Primary School Education. These disciplines had 418, 985, 877, 189, and 706 students respectively. The total accumulated number of graduates as of 1980 was 1779 at the Associated Certificate level and 1305 at the Bachelor of Science level. The major media and methods used in

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correspondence teaching at the Abooreihane Birooni University was self-instructional course materials; journals and books, as references; weekend face-to-face teaching, at regional colleges; summer face-to-face teaching (intensive courses), at a central organization; audio cassettes; counselling by telephone; counselling via post services; monthly examinations; and final examinations, at a central organization.

In 1980, all scientific activities of the mentioned schools were ceased. After 1980, the remaining 3175 students were distributed among the conventional universities.

In 1977, Azad University of Iran, founded as a distance education facility, was established. The University offered scientific activities in three fields of study, Teacher Training (Physics- Chemistry, Physics-Mathematics, Biology-Geology), Health Sciences, and Educational Sciences (Environmental, Iranian History). In the development of the University, two other fields of study, Rural Civil and Technicians (Electronics, Technical Chemistry), were anticipated. This University had 145 full-time faculty members, and 1400 students at the Bachelor level, at fourteen study centres.

The major media and methods used in distance education at the Azad University of Iran was self-instructional course materials; self-instructional references; radio; television; face-to-face counselling; practical work; students gathering, if necessary; take-home assignments; and final examinations, at study centres. In 1980, all scientific activities of the Azad University of Iran ended with no graduates. After closure, students were distributed among the conventional universities.

In 1987, Payame Noor University was established. In the 1988-1989 academic year, the University provided about 10,000 student seats in four disciplines, Chemistry, Educational Sciences, Mathematics, and Persian Language. In this academic year, over 8,000 students were enrolled at the University and were served by twenty-nine study centres. The next year, over 10,000 student seats were provided by the University in six fields of study, including the two new disciplines, Biology and Geology, and over 16,000 students were enrolled. In the second year of admission, the University had thirty active study centres.

In the academic year 1990-91, five new disciplines, Accounting, Applied Physics, Geography, Public Management, and Social Sciences, were established. In this academic year, over 24,000 student seats in eleven disciplines were provided. As a result, in 1990-91 over 32,000 students were enrolled at the Payame Noor University, served by forty-three active study centres in various areas in the country. It may be useful to mention, that all students are admitted through a competitive National Entrance Examination. Applicants must have a High School Diploma and gain a minimum required grade on the Exam. It is obvious from the figures that the total number of enrollment at the University is fewer than the total number of available seats. There are two major reasons for this phenomena. Students must gain a minimum required grade on the competitive National Entrance Examination, and some of the applicants may not pass. In addition, some of the students, for various reasons, leave the University and do not continue their education.

At present, about one-third of the University students are female and two-thirds are male, and about 61% of the students are government employees.

In order to hold a Bachelor of Science or Bachelor of Arts degree, students must pass 142 to 146 credit hours (depending on the field of study) with a grade point average of at least twelve out of twenty. The minimum passing grade for each course is ten out of twenty. The students may register for 5 to 20 credit hours per semester (17 weeks). The maximum

duration of study is five years for Associate and ten years for Bachelor degrees.

The University has 185 full-time academic staff members, 641 full-time support staff, and 1655 part-time academic staff. In the academic year 1990-91, 156 different subjects were offered at the Payame Noor University. Most of these subjects utilized self-instructional learning materials.

For the academic year 1991-92, the University will provide over 28,000 student seats in fourteen disciplines, Accounting, Applied Physics Biology, Chemistry, Educational Sciences, English Language, Geography, Geology, Islamic Theology, Mathematics, Persian Language, Psychology, Public Management, and Social Sciences (three new fields of study, English Languages, Islamic Theology, and Psychology, have been added to the previous disciplines). In 1991-92, Payame Noor University will have sixty-two active study centres in various areas of the country.

Recently, the Supreme Council of Cultural Revolution has approved that the Payame Noor University can offer out-of-country programs in Persian Language. In these programs, Associate, Bachelor, Master, and Doctoral Degrees may be conferred.

Payame Noor University was established in 1987 and started its scientific activities in the 1988-1989 academic year. In 1987, the University began to write and to produce self-instructional course materials and books. In 1989, the production of video cassettes was started. Since its inception, the University has produced over ninety self-instructional books and more than video cassettes. Recently, the University also began to provide self-instructional software packages.

The main sources of financial support for distance education in the Payame Noor University are the national budget and student tuition fees. For the fiscal year 1990, about half of the annual budget for distance education in the University was allocated by the government, and the other half was provided by tuition charges, donations from private persons and foundations, and sales profits from teaching materials. The total enrolment of students during the academic year 1988-91 is presented in the following table.

TABLE 1: Trends in Enrollment

Academic Year	Total Students	Increased by
1988-89	8118	
1989-90	16493	103%
1990-91	32523	97%

LEGAL STATUS OF DISTANCE EDUCATION

The legal status of distance education in the Islamic Republic of Iran was approved in the 94th (18 th November, 1976) Ad 97th (18th December, 1986) sessions of the Supreme Council of Cultural Revolution. The Fundamental Law of the Payame Noor University (Distance Education) was legalized by adopting some amendments to, and revising the mentioned Status in the 99th (22nd November, 1988) and 100th (29th November, 1988) joint sessions of Commissions 1 and 2 of the Supreme Council of Cultural Revolution. Some of

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the articles of that Law are as follows:

Article 1. In order to fulfill distance education system, central organisation of the Payame Noor University is established in Tehran and its study centres are established in different cities in the country.

Article 2. The University is a legal body and is an governmental institute affiliated with the Ministry of Culture and Higher Education and as view of administration and financial rules would be run under a special regulations which will be approved by the Board of Trustees.

Article 3. The main bodies of the University are as follows:

- a. Board of Trustees.
- b. Council of the University.
- c. Chancellor of the University.

Article 5. Duties and authorities of the Board of Trustees are as follows:

- a. Adopting the general policy of the University.
- b. Approving the basic rules of the development plans of the University and proposing termination or abolishment of disciplines or units of the University.
- c. Preparing the annual budget of the University and proposing it to the related bodies.
- d. Determining amount of annual tuition and approving the financial, trading, administration, and employment regulations.
- e. Approving the organization chart of the University.
- f. Approving financial activity statements and annual account balance of the University.
- g. Approving the beneficial regulations attributable to products of the University including Payame Noor University Press, Broadcasting Centres, etc.
- h. Accepting or refusing of donations from private persons, bodies, or foundations in monetary and non-monetary forms.
- i. Approving the internal regulations of the University .
- j. Assessment and evaluation of the quality of education.
- k. Putting forth of abolishing of the University to the Supreme Council of Cultural Revolution for approving.

Article 12. The Islamic Republic of Iran Broadcasting will assign some of the radio and television broadcasting hours to the University teaching programs. Note: The broadcasting expenses have to be supplied by the Islamic Republic of Iran Broadcasting and the production expenses have to be supplied by the University.

Article 14: The University will award Associate and Bachelor Degrees. Note: The University graduates may participate in the entrance examinations of the conventional universities and, if accepted, they can continue their education towards higher degrees.

OVERVIEW OF CURRENT SITUATION

Aims and Objectives

The objectives of the University are as follows:

- Promoting cultural and scientific qualification in the society.
- Offering a chance to people who live in outlying areas and have no other way of improving and continuing their education.
- Creating opportunity for people with family and work commitments who are not able to continue their

studies at the traditional universities.

- Providing instruction to applicants to acquire technical, vocational, professional, and educational qualification.
- Using all possible facilities for the development of higher education in the country.
- Presenting degree-level courses to teachers and as a result solving the problem of staff shortages at bachelor's degree levels in schools.
- Arranging short and long term updating courses and public training to keep people informed of the latest technical and scientific achievements.
- Accelerating economic and social developments by means of cultural promotion.

Control, Organization, and Management Structure

Distance education in the country is a national establishment which operates under the Ministry of Culture and Higher Education. In the Payame Noor University, there are three main bodies at the policy making level: the Board of Trustees, the Council of the University, and the Chancellor of the University. The Minister of Culture and Higher Education is the President of the Board of Trustees. The Chancellor of the University, who is also a member of the Board of Trustees, is nominated by the Minister of Culture and Higher Education, approved by the Supreme Council of Cultural Revolution, and appointed by the aforementioned Minister. The Chancellor has four Vice-Chancellors: Vice-Chancellor in Education, Vice-Chancellor in Administration and Financial Affairs, Vice-Chancellor in Research, and Vice-Chancellor in Student's Affairs.

The University has forty-three study centres distributed in various areas of the country. The Dean of the Study Centres is appointed by the Chancellor. The budget is distributed among the study centres through the central organisation of the Payame Noor University. New study centres are proposed by the University and approved by the Council of Higher Education Development, under the jurisdiction of the Ministry of Culture and Higher Education. The syllabuses of the courses are approved by the Higher Council of Planning, which is affiliated with the Supreme Council of Cultural Revolution. The self-instructional course materials are produced by a team of experts under the supervision of the Bureau of Course Production at the Payame Noor University. The academic standards are set by the Ministry of Culture and Higher Education. When about half of the self-instructional course materials of a new discipline have been prepared, new disciplines are suggested by the University to the Council of Higher Education Development for approval.

Most of the faculty members are adjunct professors who work both in non-distance education institutes and the Payame Noor University, and the rest are full-time academic staff. Most of the laboratories are held in non-distance education institutes, but a few are established at some of the study centres. The University has proposed that new laboratories will be established at the study centres.

The sources of financial support of distance education are the national budget (about 50% of the university budget); students tuition; donations from private persons, agencies, and/or foundations; and sales profits from teaching materials. In 1990, about 2.7% of the total national budget was allocated to higher education. The expenditure per student in the distance education system is about one-third of the expenditure per student in the non-distance

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education system. The annual budget for distance education for the fiscal year of 1990 was approximately \$9,210,000 (the competitive \$ rate has been used*).

* Note: There are three rates for foreign currencies:

- Administrative rate: S1 = 65 Rials.
- Competitive rate: S1 = 600 Rials.
- Roating rate: S1 = 1350 Rials.

Geographical Coverage of the Provision

The names of the forty-three active study centers, in 1990-91, are Abadeh, Abhar, Ahvaz, Aligoodarz, Alashtar, Ardebil, Ardekan, Bandar Abbas, Behshahr, Birjand, Bojnood, Boroojen, Damghan, Delijan, Esfahan, Fariman, Golpayegan, Gonabad, Gonbade Kavoos, Hamedan, Islamabad, Jahrom, Kerman, Khansar, Khoy, Mashad, Miandoab, Naghadeh, Najafabad, Rasht, Sari,- Shahre Kord, Shahreza, Shiraz, sirjan, Tabriz, Taft, Takestan*, Talesh, Tehran, Torbate Heidarieh, Oroomieh, and Zahedan

The names of nineteen study centres, which will be established in 1991, are Aran, Behabahan, Bookan, Booshehr, Dezfool, Firoozabad, Ghazvin, Ilam, Kashmar, Malayer, Marand, Nahavand, Ramhormoz, Ramsar, Sabzevar, Saghez, Saveh, Zabol, and Zarrinshahr.

The names of twenty-two study centres, which will be established in 1992 and after that year, are Amol, Azarshahr, Bandare Lengeh, Chabahar, Darab, Eshtehard, Gachsaran, Ghom, Iranshahr, Karaj, Khomein, Malavi, Mamassany, Meshkinshahr, Neiriz, Rafsanjan, Rey, Sanandaj, Semnan, Shazand, Shooshtar, and Vazvan.

Instructional System

The major method of instruction at the Payame Noor University is print study units, written in Persian Language, covering the relevant disciplines. With the cooperation of the educational technologists, illustrators, editors, and designers, the academic staff compile and lay out the self-instructional books, which are produced by the Bureau of Course Production, published by the Payame Noor University Press, and then distributed among the study centres. Students may obtain their books from the pertinent study centres.

Recently, the University has produced several video cassettes, according to a contract between the Payame Noor University and the Islamic Republic of Iran Broadcasting. These video cassettes are mostly in subject areas such as Chemistry, Mathematics, and Physics.

In 1990, the University began to produce a few self-instructional software packages in subject areas such as basic Computer Science and Mathematics courses. These software packages will be produced according to several contracts between the Payame Noor University and experts in the field of computer science (software).

The major media and methods used in distance education system are self-instructional course materials; printed correspondence texts, and/or books, as references; face-to-face

* Note: In the academic year 1990-91, some of the students in Educational Sciences are distributed between Takestan Study Centre and Abhar Study Centre.

tutoring, at study centres; face-to-face counselling, at study centres; weekend face-to-face teaching, at study centres; television, only in some of the basic courses; video cassettes, only in some of the basic courses; practical work, at study centres or conventional universities; mid-term examinations, projects, and/or take-home assignments; and final examinations, at study centres.

The final grade for each subject is weighted as follows: The written mid-term examinations, projects, and/or take-home assignments are evaluated up to 25 % . The written final examination is evaluated at least 75 % . Most of the final questions are set by the central organisation of the University and distributed among the students through the study centres.

Research Activities

Since Payame Noor University is a new established institute, considerable research activities have not yet been conducted.

Recently, the Vice-Chancellor in Research was appointed, and he organized and devised some programs for development of research at the University. six academic faculty members are now working on three manuscripts covering the theme of Face-to-Face Components in Distance Education."

Enrollment

Total enrollment at the Payame Noor University is shown in the following table:

TABLE 2: Payame Noor University Enrollment

Academic Year	Enrollment	Enrollment Ratio in Distance to Non-distance Education
1988-89	8118	8.2%
1989-90	16493	5.6%
1990-91	32523	9.8%

*Non-profit universities are excluded.

Since 1988, Payame Noor University has had no graduates, therefore, the total accumulated number of graduates as of 1990 is zero.

International Affiliation and Cooperation

Payame Noor University is a member of the Asian Association of Open Universities (AAOU). The University participated in the previous AAOU Annual Conference-1990 in Indonesia, and also intends to participate at the next AAOU Annual Conference-1991 in Sri Lanka.

In May 1990, a meeting with a representative of UNESCO was held at the University. Educational and professional resources which UNESCO could facilitate for the distance education system were discussed.

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Growth and Expansion

Since Payame Noor University's inception in 1987, it has enrolled over 32,000 students in eleven disciplines, and has set up forty-three study centres in various locations. In 1991-92, the University will provide over 28,000 seats in fourteen fields of study at sixty-two study centres. By the end of the first five-year National Development Plan (1994), the University will have enrolled over 70,000 students in about eighteen disciplines at over eighty study centres.

Problems and Issues

All students at the Payame Noor University are evaluated by a written final examination, which most take at the central organization of the University at the end of each semester. The examination questions are based on the syllabuses which have been approved by the Higher Council of Planning. Because of this type of assessment and evaluation, the quality of distance education is maintained. As a result, the degrees which are awarded by the University are accepted by the Ministry of Culture and Higher Education.

Considering the rapid expansion of the school system, and the swift population growth, the essentials of the next stage of development of the higher education systems are to maintain quality delivery systems, to provide additional resources, and to respond to the enormous increase in the demand for post-secondary education. These necessities could be met through establishing new universities, research centres, and providing enough faculty staff in the year ahead.

In view of a deficient budget and the shortage of faculty, expanding the distance education system is more affordable compared with the traditional system. Therefore, the distance education system will rapidly expand in this country.

CONCLUSION

The distance education system in the Islamic Republic of Iran has expanded considerably. This expansion has a vital effect on the development of higher education in the country. Figures illustrating the number of study centres and fields of study, enrollments, enrollment ratio of distance education to non-distance education, the number of students in 100,000 population, and the number of students in the age group eighteen to twenty-four show that the distance education system has been effective in increasing the student population of the country. Finally, the history of distance education, and particularly the development of the Payame Noor University since the time of its inception, has proven that the distance education system can be an effective way to promote cultural and scientific learning in the society, especially for students in outlying areas.

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JAPAN

Hidetoshi Kato,
Takehiko Kanya and
Aya Yoshida

NATIONAL CONTEXT FOR DISTANCE EDUCATION

Japan is a small island country lying off the eastern coast of Asia with a total area of 378,000 square kilometers. It consists of four major islands: Hokkaido, Honshu, Shikoku, and Kyushu. It extends 2,200 kilometers northeast to southwest. Japan is a mountainous country, with over 70% of the area covered by mountains.

In terms of the economy, Japan is highly industrialized and one of the richest countries in the world thanks to its advanced industries. The per capita national income in 1987 was US \$18,270, which is the largest in the world. Its economy is characterised by typical manufacturing production and trades: importing natural resources and exporting manufactured products. Occupational composition of its population in 1985 was 11% professional and technical workers, 4% managerial workers, 18% clerical workers, 14% sales workers, 31% manual workers, and 9% farmers and fishermen. In sum, white collar workers consist of over 50%, while blue collar workers are 31 %, and farmers and fishermen are less than 10%. Thus, in terms of occupation, Japan is a country with a great proportion of non-manual workers. The work force of Japan is also highly educated.

A great proportion of Japanese females participate in the work force. In 1990, the participant rate of females in the labor force reached nearly 50%. About 40% of the total labor force in 1987 was female. Although female workers have tended to quit their jobs at the time of marriage or bearing their first child, more and more females nowadays tend to continue working, or return to work after their children begin school. Reflecting this change in female participation in the labor force, more and more females recently continue in school up to higher education. Such female interests in continuing education is a factor which encourages females to participate in distance higher education in Japan.

In terms of population, Japan ranks seventh in the world with a population of 122 million people. The density per square kilometer is therefore very high; i.e. over 300 persons. In terms of ethnicity, Japan is a very homogeneous country.

Japan is now rapidly moving into a geronto-society with a larger proportion of senior citizens increasing, while the number of younger generations are decreasing. The age group of eighteen seeking higher education is about two million. It tends to decrease for older age groups. The population of age eighteen, which is the age one finishes upper secondary school then goes on to either the labor force or college, will be greatly decreasing over the next decades. It is estimated that it will decrease from 2,050,000 in 1990 down to 1,500,000 in 2010. Such a drastic change in the number of younger age people influences education policies. Especially for private higher education institutions, to survive in the era of a smaller number of college-seeking age population, non-traditional students become an alternative market to supplement the decrease of traditional college age students. This shift

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toward education for adults attracts private institutions in distance education, which serve as convenient means for the provision of education for non-traditional students.

In addition, because Japan has become a matured industrial society, culturally rich leisure time is sought. Life-long learning is now a target of major concern by policies planned by the Ministry of Education. In recent educational reform plans, the Ministry launched a project to establish life-long learning centers in each community. Distance education is seen in the plan as a way to provide the opportunity for life-long learning in communities.

Japanese is the language of instruction in most Japanese schools, while exceptions are seen in international schools or foreigner's schools.

The educational system in Japan consists of formal and non-formal education. The formal education includes (1) six-year primary education, (2) three-year lower secondary education, (3) three-year upper secondary education, and higher education, with pre-school education and education for handicapped people. Nine years of primary and lower secondary education is compulsory. Although upper secondary education is not compulsory, almost all graduates from lower secondary school go on to upper secondary school after taking entrance examinations. Higher education consists of technical college, which includes three-year upper secondary education and two-year post secondary education; two-year college; four-year university; and graduate school. In 1990 there were 593 two-year colleges. Currently, the enrollment rate of higher education reaches nearly 40%. In other words, Japan is in a mass stage of higher education according to Burton Clark's definition. For males, enrolment in 4-year institutions is the dominant pattern of higher education, while for females, over 90% attend 2-year colleges.

In addition, special training schools (vocational oriented training schools, or STS) at the post-secondary level enroll about one-tenth of new high school graduates. By gender, 14.9% of male high school graduates go to STSs, and 16.7% of females do so, while 34.0% of male and 34.8% of female graduates go directly into the labor force.

A variety of non-formal education institutions also attract a great number of people. Distance education methods are used by this non-formal education sector, too. Some large JUKUs, after-school preparation classes for entrance examinations, use satellite to provide education. Social education programs are provided through correspondence. There are a variety of social education programs, ranging from training for accountants to traditional flower arrangement provided by correspondence. Not a few programs lead to preparation for national examinations given by government agencies. In 1990 there were 217 correspondence courses for preparation for such examinations leading to certificates.

Japan has a highly advanced communication infra-structure. In addition to traditional ways of communication such as postal service and printing, telecommunication facilities and equipment are widespread, including radio broadcasting (both FM and AM), TV broadcasting (VHF, UHF, and satellites), computer networks, telephone, and facsimile. TV and video equipment are widely diffused across households, with over 70% of households having at least one TV set.

Distance education in Japan cannot be thoroughly discussed without referring to the use of broadcasting, which dates back to late 1920s. Radio broadcasting in Japan was inaugurated on March 22, 1924, and Shinpei Goto, the first president of NHK mentioned that one of the major missions of public broadcasting was "socialization of educations among other things. His idea was well-taken by some progressive intellectuals and educators, but

the majority of educators, especially school teachers, were against this innovative proposal, arguing that mechanically delivered voices were not appropriate and sufficient for education.

They insisted that "Real" education had to take place in classrooms where face-to-face instruction was given. Some extremists warned that radio would replace school teachers, resulting in total unemployment for school teachers. At the same time, there were policy disagreements between the Ministry of Education and the Ministry of Post and Transportation over the uses of this new mass medium.

Under these circumstances, even though a second radio channel was facilitated in 1931 to serve educational purposes, school education was not included as the target of this new channel. Somehow, however, certain compromises were made, and in 1933, the Osaka station of NHK started a new program, "Radio Exercise", to be broadcast primarily to elementary schools. The program was designed in such a way that school children could practice simple physical exercises for ten minutes every morning before their classroom work. At the same time, the station made another ten-minute program for pre-school children, as well as "Music for School" during lunch time so that children could listen to music. Following these neutral experimental programs, they programmed the daily "Teachers' Hour", in which school teachers could listen to special lectures. Then, "Elementary School Children's Hour" was broadcast as an "extra-curricula hour" every afternoon. NHK's Osaka station, after testing these five programs, categorized them under the name of "School Broadcast" and from September of the same year, they distributed supplementary textbooks to 2,500 elementary schools within its service area.

With the success and further potential of educational use of radio, in March 1935, NHK, upon consultation with supervising Ministries, formally decided to program "School Broadcast". In his inauguration speech, Genji Matsuda, Minister of Education of the day, emphasized that "School Broadcast" was not the replacement of regular classroom instruction and that the programs were "supplementary to normal teaching where curriculum related matters are delivered by a different method so that children can be further motivated". In addition to, or as a special part of "School Broadcast", "Morning Speech" was inaugurated. As a matter of fact, Matsuda's speech was the first of this lecture series. The time scheme was from 8:00 to 8:10 every morning, and most of the school children throughout the nation had to listen to these speeches. Considering the historical fact that 1935 was the year when Japan was reaching the peak of militarism, ironically, this morning program performed its role as ideological indoctrination.

Despite the Minister's caution that "School Broadcast" was "supplementary", concerned professionals in NHK were eager to make school-targeted programs a part of regular curriculum, and in reality, programs independent from classroom instruction were designed and broadcast in the same year. In this new programming, teaching by broadcast was designed in such a way that children of each grade (from One to six) could have access to its own program 30-minutes every week. Whether to use this new means of education in the classroom, and whether the programs were taken as "supplementary" or "independent" were up to each school principal. It was natural that there were two groups of extremists and a variety of neutral stances, but at any rate, this was the beginning of the use of a broadcasting medium for institutional education.

After a ten-year black-out due to a series of incidents and wars, educational broadcasting was revived. With encouragement from the Civil Information and Education Section of Occupation Forces, NHK in cooperation with the Ministry of Education, resumed

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its school education programs, and in 1953, such programs covered not only elementary schools but also secondary and high schools. Channel 2 of NHK radio devoted five hours every weekday to school broadcast. With the introduction of television, NHK expanded educational programs to this new medium. Television instruction was inaugurated in 1958, and in 1964 when television receivers were diffused among the general public, channel 2 of NHK television relayed seven hours of instructional programs daily. The Ministry of Education as well as local authorities encouraged and subsidized the purchase of television receivers by schools, and the purchase of sets was tax exempt, as they were regarded as educational equipment.

Two interesting things happened at this stage. On the one hand, many school teachers welcomed the arrival of school education programs offered by television because television demonstrated that it could make certain visual presentations which regular classroom instruction could not. For example, sophisticated experiments in physics and chemistry could be understood by students, when they were delivered by television. The second discovery was that instructional television programs were found to be watched not only by the targeted students but also by a certain portion of general audience. A good example of this is foreign language courses, especially English. And the textbooks originally designed for secondary and high school students were in high demand by a more general audience as well.

This trend indicated that educational programs for general public education were feasible. Channel 2 became designated as the "educational station", and was obliged to broadcast programs devoted to education in the broadest sense of the term. The staff of Channel 2 has produced weekly educational programs which range from lecture series on world history to botanical science, from computer science to oil painting, over thirteen-week terms. NHK's affiliated publishing house printed and circulated the textbooks to accompany these programs, and popular ones such as conversational English often sold millions of copies. Though these programs are not for any credit, diploma, or official qualifications, the massive sales of textbooks was extremely encouraging for NHK. Channel 2 is still active and popular in this area, and what Channel 2 has been doing is enough to demonstrate that there is a huge population of learners who are looking forward to receiving popular and liberal public distance education.

As discussed earlier, as soon as correspondence high school programs were legalized, Channel 2 started its own high school by means of broadcasting. Further, Channel 2 began new programs under the category of "citizens' University" in the early 1970's. The term "university" was metaphorical in the sense that the "university" is neither accredited, nor meets with the standards set by the Ministry of Education. The final design for an officially recognized "university" materialised when University of the Air was established in 1984.

In its initial phase, the University of the Air was planned to be a national university utilizing broadcasting media. However, due to restrictions of the Broadcasting Law, which states clearly that no government agency can have broadcasting facilities, its establishment was illegal. The University was finally established when the Ministry of Education, in cooperation with the Ministry of Post and Telecommunications, developed a special judicial person called University of the Air Foundation, which includes broadcasting stations. However, in reality, about 85% of the University's budget is subsidised by the government.

HISTORY AND BACKGROUND

The term "distance education" which is literally and tentatively translated as *enka-ku kyouiku* has been alien to Japanese lexicon until very recently. As a matter of fact, even a professional encyclopedia of education from 1988 does not list this particular terminology. However, the word *tsuushin kyouiku* which stands for "correspondence educations or "education through correspondences has been commonly and popularly used since the late nineteenth century.

To be more exact, the first practice of modern correspondence education took place in May 1883, when a school called Houbunkan offered courses in Chinese literature to off-campus students. In September of that same year, it is recorded that another school by the name of Tokyo Gakkan inaugurated correspondence programs in stenography and bookkeeping. The scale of the operation of these early schools is unknown because original documents are not accessible, but it may be safe to say that 1883 was the year when modern correspondence education was founded.

In 1885, an established college *Igirisu Houritsu Gakkou*, the forerunner of present *Chuo University*, instituted a correspondence course for off-campus learners, and about a dozen other universities followed suit. As a result, toward the end of the century, it is recorded that the courses thus offered to the general public reached some 300 altogether, and the number of students increased accordingly. For example, *Wafutsu Gakuin* counted 8000 students in 1894. Another institution called *Shisei Gakuin*, which seemed to have been engaged solely in correspondence courses, proudly stated that the total number of students was 20,000 as of 1900, and that the students' geographical distribution covered not only various parts of Japan but also China, Korea, and even Hawaii. According to an expert researcher, the yearly number of students who took these correspondence courses came to between 250,000 and 300,000 at the turn of the century.

As will be discussed later, most of the learners who took correspondence courses in those days were not qualified for a formal diploma, and their major concern was to get training in vocational knowledge and skill. However, considering the fact that the number of students who registered at regular universities in 1900 was merely 20,000, the figure just mentioned is extremely significant and important, as it indicates the aspiration for higher learning among the Japanese public, and at the same time, implies potential quality of manpower which did not appear in official statistics.

The reasons for the popularity of correspondence education were multi-fold. In the first place, needless to say, higher education in late nineteenth century was for a selected and privileged few, while there was high demand for higher and/or professional education on the part of the general public. Most of the correspondence schools were open to almost everybody, and they did not give any competitive entrance examination. The tuition fee was, generally speaking, affordable for most people. The incentives upon completion of the courses often were attractive. For instance, *Meiji Kogakkai*, which was founded in 1894, served for teachers' training and licensing. The modern Japanese school system was legally instituted in 1972, and the government decided to give compulsory elementary school education to every Japanese citizen. The number of elementary schools thus decided on was 53,700 throughout the nation, and in order to meet this requirement, tens of thousands of school teachers were needed. Though seven national teachers colleges were established between 1972 and 1974, qualified school teachers were naturally in short supply. Therefore,

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in the transitory periods teachers could be, and had to be, appointed with minimum qualifications. Correspondence education was, in this connection, an effective means to produce school teachers. As a matter of fact, Meiji Kogakkai attracted some 4,000 students annually until enough teachers with diploma filled their positions.

In the second place, the advancement of stenography made university lecture series available for the general public. An historical survey reveals that Japanese stenography was invented by a person by the name of Koki Tagusari in 1882, and one of his students, Kanzo Wakabayashi started to bring this new technique into practice in 1883. Wakabayashi and his colleagues transcribed, among other things, lectures delivered by eminent university professors. As a result, such transcription of university lectures were published in the form of books, and circulated among the public. The most famous series was produced on the campus of Waseda University and they entered the book market under the name of Waseda Lectures in the late 1890s. With these lecture series as textbooks, another form of correspondence education came into existence. It should be also noted that these lecture series were deposited at major public libraries throughout the country so that anyone could have access to higher education.

The Japanese postal system, which was legally instituted in 1871, was another encouraging factor for correspondence education. The Ministry of Post made special arrangements for educational materials used in correspondence education, thus these materials were classified as 4th class mail at a considerable discount.

As described, the first correspondence education program was established in the pre-war period of the last two decades of the nineteenth century by private institutions. Even during the pre-war period, Japan had a large number of correspondence education institutions and students learning there.

However, the full establishment of distance education with formal authorisation and approval began after World War II. In 1947, the Fundamentals of Education Act and the School Education Act were enacted. Under the legal environments built by these Acts, high schools and higher education institutions were lead to establish correspondence education programs to open educational opportunities to people at large. The number of higher education institutions providing correspondence programs has increased from only two in 1947 to twenty-one in 1990, while that of upper secondary schools has increased from 70,000 in 1960 to 160,000 in 1990.

To open education to the public at large, especially to people who otherwise would not have the chance to learn at school, correspondence education was allowed officially to provide education both at secondary and higher education levels. In 1947, Keio University and Hosei University established correspondence education courses, which were followed by Chuo University in 1948 and Nihon University and Japan Women's University in 1949.

A further expansion of distance education was attained by establishment of the University of the Air in 1981, and the University began enrolling students in 1985. This new type of higher education institution uses broadcast as a major medium to provide education.

In 1990 there are eighty-four upper secondary schools, nine junior colleges and twelve universities which provide correspondence education programs, in addition to the University of the Air which uses broadcasting as a major instructional medium. In 1990, about 200 students were enrolled in correspondence courses in two lower secondary schools, about 167,000 in eighty-four upper secondary schools, about 32,000 in nine two-year colleges, and 105,000 in twelve four-year colleges/universities, in addition to about 30,000

students at the University of the Air.

THE LEGAL STATUS OF DISTANCE EDUCATION

Though the tradition of distance education thus created continued throughout the past century, there seems to have been several changes, especially since the end of World War II. First of all, it should be emphasized that education, inclusive of correspondence education, in Japan today is a right secured by the Constitution. The new Constitution which came into effect on November 3, 1946, states in its Article 26 that "All people shall have the right to receive an equal education corresponding to their ability, as provided by law". The "law" which is subject to this article is the Fundamentals of Education Act which was instituted on March 31, 1947. According to this law, it is compulsory for every Japanese citizen to complete nine years of elementary and secondary education, and such compulsory education shall be free of charge (Article 4). The law also states clearly that the "aim of education is to grow autonomous and healthy citizens," and "the aim shall be materialised at any opportunity at any place" (Article 1,2). since to receive education is a constitutional right and education should be available everywhere, at all times, the whole educational structure changed drastically.

At the time when these fundamental laws were enforced, there was a considerable population that had not received secondary education. In order to satisfy those who needed secondary education, Article 105 of the School Education Law, which came into effect along with the Fundamental Law, permits to provide secondary education only to the age group who finished their elementary education before March 31, 1946, as a temporary and transitory arrangement. As of 1990, there were two junior high schools, one in Tokyo and another in Osaka, which gave secondary education by correspondence. The number of students who took this secondary correspondence school in its initial phase is not clear, but for obvious reasons, the number has been declining. It is reported that in the 1980s, a mere 200 people registered for this program. It is estimated that correspondence school at the secondary level would diminish substantially before the end of this century.

After 1945, especially in the 1970s, post-secondary education turned out to be quasi-compulsory and, on average, 96% of junior high school graduates went on to senior high school. However, there are groups of young people who cannot register at senior high school for various reasons. In order to provide opportunities for this group, the School Education Act made special arrangements. In Article 45, the law says that "Senior high schools may have a correspondence program." This article was revised in such a way that those students who reside out of a regular school district can take courses. Such "wide coverage" correspondence high school can be exemplified by the one which was initiated by NHK. NHK, or Japan Broadcasting Corporation, extended its arm, as a public service, to this area, and created a new correspondence high school in 1961. The advantage of this new school, which is called NHK High School, is its full use of broadcasting facilities, both radio and television. Registered students are obliged to listen to and watch designated programs delivered by broadcast, read textbooks, and take term examinations. Upon completion of courses, they can obtain a high school diploma. As of 1990, there were seventy-eight "local" and five "wide coverage" high schools which provided education by correspondence. The number of students in the high school level correspondence course was 164,422 altogether (80,420 males and 70,312 females) in 1990.

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At this point, it should be added that, in 1988, a new high school based on a unit system" was instituted by the Ministry of Education. This new system was introduced primarily for those adults who missed the opportunity of attending high school, as well as for high school drop-outs. These people can, under this system, report to a designated high schools the units they have already earned, and continue their school work until they complete the necessary credits. In 1990, there were altogether thirteen designated schools throughout the country, and they have without exception either night courses or correspondence courses. This system also provides chances for the general public to take courses they want, as a part of continuing education.

On the level of higher education, Japanese junior colleges are permitted to give degrees to students by correspondence. Upon the decision of the Ministry of Education of March 23, 1982, a new standard was set on this matter. According to the regulation called "standards for junior college correspondence programs", instruction of correspondence courses in junior colleges can be given "by sending printed teaching materials, by broadcasting and similar. means, classroom instructions, or the combination of these methods" (Article 3). But the courses given by correspondence are limited to "those curriculums where the correspondence method is appropriate and sufficient educational effects are expected". Though the regulation was only eight years old as of April 1990, nine junior colleges offered correspondence courses with 24,450 registered students. All the junior colleges which had this advantage are private institutions. Upon completion of sixty-two units, a student is given a degree equal to that for "on-campus" students, on the condition that at least fifteen units out of sixty-two must be earned by classroom instruction, and each college usually provides special sessions for these off-campus students.

Four-year colleges and universities were encouraged to offer correspondence courses in 1961 when the Fundamental Law of Education was amended. But its original text said only that "universities can have correspondence programs", and did not specify their standards until 1981 when "Standards for University Correspondence Programs" came into effect. The contents of the regulation are similar to those of junior college correspondence programs, except that total units to be earned are 124 including a compulsory thirty units in classroom instruction. University correspondence program regulations further limit the kinds of courses delivered to off-campus students. To be more exact, only departments of Literature, Education, Law, Economics, Management, Physical Sciences, and Home Economics are approved to give such off-campus courses, and correspondence education in subjects such as Medicine, Engineering, and other university departments where experimental laboratory work is needed, are not permitted to establish such correspondence programs. As of 1990, there were twelve universities offering correspondence programs with a total student number of 92,250.

The implication of this series of legal arrangements regarding correspondence education, which took place in very recent years, is very important in the sense that correspondence education, so popular in the past century, was not recognized as a part of the institutionalised educational system. In other words, the degrees conferred by many universities in the past was not an officially recognized one. Considering such already existing programs, the regulations made an exception saying that "those universities and organisations which had correspondence programs before the date of this legislation can follow their own precedents for the time being." Because of this exclusive article, old correspondence universities were able to survive as accredited institutions.

A careful observer of these regulations may notice that "broadcasting is counted as one of the means of instruction, and at the same time that such legislation is extremely recent. The reason why legal actions on higher distance education were taken so recently, and "broadcasting" is included as a part of such programs, can be interpreted and understood only in connection with the fact that the University of the Air Foundation Law was passed in the Japanese Parliament on June 11, 1981. The University of the Air has been a national project since the mid-1960s, in which government agencies, especially the Ministry of Education, took initiative. The objective was to deliver university level lectures by means of broadcasting so that every Japanese citizen in every corner of the nation could have access to higher education. Because of budgetary and many other obstacles and considerations, it took more than a decade until the special law was debated and passed the Parliament. The initial stage was to cover the Tokyo metropolitan area, and the University, with its own independent FM radio and UHF television station, started its operation in March 1984.

The University gives instruction by a combination of printed textbooks, broadcasting, and classroom instruction in accordance with the standard which was introduced before. From a legal stand point, the University is a correspondence university by definition, but because of its full use of broadcasting facilities (the university broadcasts lectures from 6:00 a.m. to midnight everyday, or 18 hours a day) it differs from others. Keeping this new idea and practice in mind, policy makers expected and hoped that University of the Air's programs could be utilized and shared by other institutions, both conventional and correspondence colleges and universities. In that sense, the birth of the University of the Air marked a milestone not only in the history of correspondence programs but also that of higher education in Japan. It has been attracting some 30,000 students annually since its inauguration, and it is being planned to put the programs on broadcasting satellite in 1997 so that the university can be a nation-wide operation. For the time being, in order to meet with local needs, the university set up five "video study centers" from the northernmost island of Hokkaido to the southernmost Okinawa islands in collaboration with national universities situated in each prefecture.

OVERVIEW OF THE CURRENT SITUATION

Aims and Objectives of Distance Education

Distance education in Japan has a long history, tracing back to the late nineteenth century. Lecturing through correspondence developed in the last two decades of the nineteenth century both at the secondary and the higher education level. It is estimated that in the 1930's there were over 200 kinds of correspondence lecture books published and that one of the largest programs published over 1,200,000 copies. Although these correspondence courses were not regarded as a part of formal education, they gave a large number of people the chance to learn at a distance.

However, full development of distance education began after World War II, especially after the Fundamentals of Education Act and the School Education Act were enacted in 1947. Such a legal arrangement lead high schools and higher education institutions to establish correspondence education programs to open educational opportunity to people at large.

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A further expansion of distance education was attained by establishment of the University of the Air in 1981, and the University began enrolling students in 1985. This new type of higher education institution uses broadcast as the major medium to provide education.

In a brochure published by the All Japan Association of Private Universities Correspondence Education, which is a nation-wide association of higher education institutions providing education through correspondence, the aims of university correspondence education are summarized as follows (AJAPUCE, 1981, pp.6):

- (1) to open the gates to a university education to the public at large, bring democracy and equal opportunity to education;
- (2) to achieve open university education;
- (3) to play a social education role by opening whole or part of a university course to the public, irrespective of admission qualifications.

A University of the Air's brochure describes its aims as follows:

- (1) to provide working people and housewives with the chance for a college education;
- (2) to provide an innovative and flexible system of college education which is open to all high school graduates;
- (3) to cooperate with existing universities and make full use of the latest knowledge and newest educational technology in order to offer a system of higher education which meets contemporary needs;
- (4) to contribute to further improving higher education in Japan by strengthening cooperation with other universities, promoting the transfer of credits, encouraging faculty exchange, and disseminating broadcast materials.

Control and Management

Distance education is provided by different legal institutions. Two lower secondary schools providing correspondence programs are public, municipal institutions, while upper secondary schools are prefectural. All secondary schools with correspondence courses are managed by a public body, according to educational acts and legal regulations. Administrators and teachers are all public employees.

The member institutions of the All Japan Association of Private Universities Correspondence Education are all private, commercial establishments. These conventional institutions run a division of distance teaching programs by correspondence. Although even private institutions must follow legal guidelines set by the Ministry of Education, these private colleges and universities are managed by private educational corporations, which must be non-profit organizations. On the other hand, The University of the Air is a special corporation, a semi-national institution, run by the University of the Air Foundation. The Board of Trustees of the foundation manages the University in accordance with the law of establishing the University of the Air.

Financing Distance Education

Public secondary schools providing correspondence courses are mainly financed by both central and local governments, with some support stemming from moderate tuition and fees paid by students. Private higher education institutions providing correspondence courses are mainly financed from students' tuition and fees, while partly subsidized by the government.

These institutions earned a total revenue of 8,138 million yen (US \$62.6 million) in 1983, and out of it, about 11% came from the government subsidies. The average revenue for four-year university correspondence programs is 678 million yen (US \$5.2 million) and 373 million yen (US \$2.9 million) for two-year college programs.

On the other hand, revenue for the University of the Air, run by the University of the Air Foundation, for the fiscal year 1990 was 8,709 million (US \$67 million) and about three quarters of it comes from government subsidies.

Geographical Coverage of the Provision of Distance Education

Correspondence courses provided by the members of the All Japan Association of Private Universities Correspondence Education cover all prefectures.

The University of the Air covers the Kanto area, while there are ten prefectures outside the Kanto area which have videostudy centers to provide the University's programming. The University plans to broadcast its educational programs via satellite in the near future to cover the whole nation.

Instructional Systems

Correspondence education programs use printed textbooks as the major medium, with face-to-face instruction sessions and other forms of media as supplements. For a BA degree, out of 128 required units, over thirty units must be taken from face-to-face sessions, while for an associate degree, out of sixty-two required units, over 15 units must come from face-to-face sessions.

The University of the Air employs a TV and radio broadcast-based approach supplemented by printed textbooks and face-to-face instruction sessions. In 1991, 155 courses were broadcast by TV and 144 by radio. Out of 128 units required for a BA degree, seventeen units must be taken from face-to-face sessions.

Although the above describes the current state of instruction systems in distance education, a new era seems about to begin. With the rise of new satellite technology, educators began to pay attention to the potential of satellite communication. The pioneers in this area were, first, business firms which were interested in delivering necessary education along with information to their employees scattered throughout the nation. For instance, NEC, one of the largest electronics and computer manufacturers, inaugurated their own training programs via communication satellite as early as 1987. In this network, called NESPAC, ten branch offices of the company can receive technical lectures sent from headquarters located in Tokyo. Moreover, the lectures thus given are interactive in the sense that the learners can "talk" to the instructors. In terms of cost-effectiveness, the company proved that, in the long run, it pays.

The method was followed not only by other business firms but also by schools. A good example is Kawai Juku, a preparatory school for university entrance examinations. It is a private school with an established reputation which attracted thousands of students. With the expansion of their business, they decided to send instructions by way of communication

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satellite, and eighteen branch schools throughout Japan are receiving the satellite from the headquarters, so that students can have simultaneous access to the instructions. The school started this new program in 1988, and the tele-course has been successful both in terms of educational effect and cost performance. Here again, the system was designed in such a way that students have the chance to interact and offer feed-back.

In the area of institutional education, several innovations have developed, especially in higher education. In the first place, in order to cope with increasing numbers of students and facilities, Tokyo Institute of Technology decided to set up a second campus in a suburb of Tokyo, some fifty kilometers away from its main campus. To connect the two campuses, the Institute introduced optical fiber cable in 1986, and with the cable service, two classrooms can receive simultaneous lectures with audio-visual interaction. The second example is Shinsyu University. It is a national university located in the mountainous central part of the nation, and from its beginning, it divided its campus into four different communities which are separated by highlands. A new telecommunication device was introduced here in 1988, and with its own system, the university faculty and students are enjoying integrated and efficient interactions.

Enrollment and Graduates in Distance Education

In 1990, about 200 students were enrolled in correspondence courses in two lower secondary schools, about 167,000 in upper secondary schools, about 32,000 in two-year colleges, and 105,000 in four-year colleges/universities. In addition, there were about 30,000 students enrolled in the University of the Air. At the higher education level, there were 167,000 students in total learning in distance education programs. The ratio of enrollment in distance education programs to non-distance education programs is about 2 % both at upper secondary and higher education levels.

In 1990, the number of graduates from correspondence education programs at upper secondary education level was 25,659, and at the higher education level, there were 2698 graduates from four-year institutions, and 5519 from two-year institutions, while there were 717 graduates from the University of the Air.

The accumulated number of graduates from correspondence education programs at higher education level reaches 100,000, while those from the University of the Air, as of late 1990, reached 1,322.

International Affiliation and Cooperation

The University of the Air is a member of the Asian Association of Open Universities.

Research Activities in Distance Education

Research activities are undertaken by the National Institute of Multimedia Education in collaboration with universities and colleges including the University of the Air. The research activities are: (1) research and development of production of educational materials; (2)

academic evaluation and testing in distance education; (3) audio-visual resources for distance education; (4) historical and comparative study on distance education; (5) educational use of satellite; and (6) survey on social need for higher education.

Problems and Difficulties in Distance Education

Difficulties in implementing distance education are mentioned as follows: To balance the two goals of providing a BA degree and providing life-long education; to estimate the effect of education through broadcasting and mixed media; to estimate the effect of correspondence guidance; to teach technology courses through TV broadcasting; to arrange face-to-face sessions, including finding locations for the sessions and student's accommodations; and to acquire a positive social reputation and recognition of the degree provided through distance education as noteworthy as degrees conferred by non-distance education programs.

THE REPUBLIC OF KOREA

Synghan H. Kim

THE NATIONAL CONTEXT FOR DISTANCE EDUCATION

Korea occupies a peninsula extending south from the northeastern corner of the Asian continent. The total land area of approximately **220,000** km is politically divided between north and south in the ratio of about 6:5. The southern part constitutes *The Republic of Korea*, which is referred to simply as "Korea" in this study.

Korea is a constitutional republic, in which voting rights are vested in all citizens above the age of twenty. The executive, the legislative and the judiciary constitute the three branches of government under the President. The legislature is unicameral and the judiciary is made up of the Lower Court, the Court of Appeal and the Supreme Court. The nation is divided into fifteen administrative units--one Special City, five Municipalities and nine Provinces.

Before the second half of the present century, Korea was an agrarian society, poor in natural resources. Thanks to the successive implementation of Five Year Economic Development Plans since the 1960's, the nation's economy has achieved very rapid growth. Not only has it expanded quantitatively, but also the economic structure has improved qualitatively. This rapid development has transformed the Korean economy from a largely agricultural economy to a newly industrialized one.

In short, the Government had successfully implemented five successive five-year plans since 1962, and commenced its sixth five-year plan this time for economic and social development in 1987. The sixth plan is so named because it especially emphasizes balanced development of both economy and social welfare so as to reduce disparity between segments of the population or between different regions. This is intended to promote a more equitable distribution of the fruits of economic growth.

The successful implementation of the economic development plans has brought Korea to the threshold of industrialized countries. As of 1990, per capita GNP stood at \$5,340 and the volume of trade amounted to \$1,125 billion, ranking it the 10th in the world. The government of Korea has pressed for the favorable development of heavy and chemical industries and high technologies and the expansion of exports. Despite the sporadic oil shocks the world witnessed during the 1960's and 70's, Korea has made steady progress in industrialization; a marked progress was registered in cement, iron steel, ship-building, automobile and machinery. As a result, educational opportunities at all levels were substantially improved.

As of 1990, the population in South Korea was about 43,730,000 and nearly one fourth of them (10,290,000) live in and around the capital city of Seoul. By virtue of the lengthened life expectancy and the sustained implementation of the family planning movement, the annual growth rate declined to 1.0% in 1990. Population density is one of the world's highest, accommodating 430 per 1 km. Should the current trend remain unchecked, on the assumption that each married couple raises only two children, the population growth could reach 60 million by the year 2050.

Koreans are homogeneous people and the only language of instruction at all levels of education is Korean. In some school texts, however, Chinese characters are also used along with Korean in order to clarify the meaning of words. The use of Chinese characters also reflects the nations' long history of cultural affiliation with its neighboring country, China. Starting at middle school, English is introduced as a major second language. In high schools, students can choose one or more foreign languages as the elective second language from among German, French, Spanish, Modern Chinese and Japanese.

In order to enable all citizens to receive equal opportunity for education, regardless of their religion, sex, or economic status, the following types of schools have been established as the formal education institutions: Elementary, Middle and High Schools, Colleges and Universities; Teachers Colleges, and Colleges of Education; Junior Vocational Colleges, Air & Correspondence University and Open Polytechnics; Air and Correspondence High Schools; Trade Schools and Trade High Schools; Civic Schools and Civic High Schools; Special Schools for the Handicapped; Kindergartens; and Miscellaneous Schools.

These schools constitute the foundation of the nation's formal education system, on the 6-3-3-4 pattern. However, it can not be overemphasized that in this country, according to the Constitutional mandate that declares the promotion of life-long education should be the responsibility of the Government, programmes of pre-school education and adult education which are much more diverse and flexible in nature are an integral part of the nation's educational system.

HISTORY AND BACKGROUND

Parallel with the dramatic growth in the economy has been the rapidly increasing student population. This student explosion was, and still is, a most critical problem in Korean education. As a consequence, one of the most pressing problems in elementary education is that of classroom congestion, especially in the larger cities. Because of classroom shortages, some elementary schools are forced to operate two daily school shifts. Exacerbating the situation is the fact that many of the existing school facilities are obsolete. The Government plans to split some of the large schools into smaller units, thus easing the overflow and eliminating the two shift scheduling of classes.

Secondary education is faced with a similar problem because compulsory and free middle school education is being extended.

Because of inadequate budget appropriations for solutions to such issues, an education tax was introduced in 1982 for the ensuing five-year period and the duration of its taxation has been extended until the present. The education budget for the current fiscal year 1990 is 5,062 billion Won, roughly equivalent to US \$7 billion. This takes up about 22.3% of the nation's total budget (22,689 billion Won or US \$31.5 billion), of which about 83% is allocated for compulsory education. Another result of this enormous acceleration in secondary schools has been swelling numbers of university aspirants with which higher education has not been able to keep pace, despite impressive efforts exemplified in the figures in Table 1.

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TABLE 1: Expansion of Higher Education

Classification	1945	1960	1970	1980	1990
Schools	19	85	168	236	536
Index	100	450	890	1,240	2,821
Teachers	1,490	3,808	10,435	20,900	33,483
Index	100	260	700	1,400	2,247
Students	7,819	101,041	201,436	601,994	1,467,000
Index	100	1,290	2,586	7,700	18,761

Source: Ministry of Education

The sharp increments of students in secondary education has brought an overheated competition for the entrance examination into higher education. While the Government has already put in force- educational reforms intended to cope with the chronic entrance competition, enlarging the opportunities for higher education has not yet been achieved for burgeoning secondary numbers. The Korean Government also plans to initiate solutions to issues such as the inequalities that exist among social classes and among regions in opportunities for education, conditions of education and educational outcomes. Solutions include plans for the youth from underprivileged families to receive greater support through an expansion of vocational educational programmes and an increase in financial support to vocational schools. A similar need exists among working people. The introduction of distance education institutions like KACU and ACHSs in the 1970's stems from the same purposes.

As mentioned earlier, distance education in Korea at first was conceived as a new educational avenue for the growing population of secondary school graduates and as part of the concept of lifelong education, which responds to the educational needs of all citizens at any point in their lifetime. As the standard of living improves, the adult population has increasingly sought further education as one of the means Or learning to cope with the alterations they encounter in a rapidly changing environment. Of course, they turn to education for a multitude of reasons. Some may come just for enrichment of their life, others to improve their working status. Still others turn to education to fulfill a strong desire to resume his or her interrupted schooling. This newly emerging adult clientele, because of work and other obligations, finds further education possible only when they are allowed to study at their own pace and as their situation permits. In other words, the new and developing educational needs of our society have amplified the demand for part-time higher education at the least possible cost. Thus, distance education has been conceived as a major element of the response to this demand.

At the same time, it constitutes a new, cost-effective alternative for the ascending numbers of secondary school graduates who are denied access to conventional universities because of their failure to pass the qualifying examination, heightened by the limited capacity of these conventional universities to accommodate the students. By referring to the following Table, one can easily notice the problem posed by the growing gap between numbers of applicants for college entrance and those of actually admitted students during the last fifteen years between 1974-1990.

TABLE 2: Number of Applicants for College Entrance and Those of Waiting for the Next Year's Re-examination dunnng 1974-1990

YEAR	Total Number of High School Graduates	Actual Number of College Applicants			Admission Quota
		New Graduates	Reexaminer	Total	
1974	234,876	130,734	64,182	194,916	56,580
1978	400,421	202,649	117,184	319,833	76,410
1980	467,388	317,606	183,909	501,515	205,835
1984	614,062	439,551	248,100	687,651	328,936
1988	685,909	509,265	256,339	765,604	296,820
1990	767,571	605,258	283,890	889,148	344,855

Source: KFDI 1991 Educational Indicators in Korea.

Thus, a distance teaching university was established in Korea as an avenue of opportunity for higher education for the adult population and for secondary school graduates who failed in the national qualifying examination for university entrance. The air and correspondence education system was introduced in Korea to fulfill these concepts of distance education and led to the founding of the Korea Air and Correspondence University (KACU) and Air and Correspondence High Schools (ACHSs). It can also be said that the air and correspondence system offers higher education suitable for a new age by using the latest techniques of mass media as a teaching forum. Their successful teaching developments have combined broadcasting and audio/video cassettes with print materials, making education readily accessible to all students. Thus, a substantial segment of the adult population has been encouraged by such innovative techniques to take advantage of the opportunities opened to them to pursue higher education.

It is worth mentioning that there was a prototype of correspondence teaching in this country as early as the 18th century. Shung-Ho Lee (1681-1763), one of the most brilliant pragmatist scholars of those days, is said to have initiated a system of correspondence courses to teach young people in local communities on such diverse subjects as Chinese classics, history, geography, phonetics, and metallurgy. His teaching method was to regularly send woodcut textbooks to his disciples who lived in the remote country side and to respond from time to time to their inquiries about what they were taught by the correspondence texts. Two centuries later in the 1920's through 40's, during the period of Japanese occupation of Korea and subsequent to it, many self-learning Koreans also benefitted from subscribing to the so-called Correspondence Lecture Series of secondary and college levels, which were published by several private universities in Japan as well as in Korea.

At present, there are several ongoing distance learning programmes in Korea in the fields of both formal and non-formal education. Besides the Correspondence Courses of the Korean Standard Association (KSA), which has gained great popularity amongst the workers of small and medium sized industries, and the Catholic Doctrine Correspondence Courses run by the Korean Catholic Church, for those Catholics who are preparing for Christening much of the non-formal distance learning programmes in Korea comes through the broadcast media. Aimed usually at adults in homes, they cost nothing and demand little or no preparation by learners, but are sometimes also supported by printed or other media

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materials. The programmes include all types, ranging from the "how to fix its variety to very sophisticated topics like philosophy and arts. For the most part, they are intended to encourage greater understanding among members of the general audience.

Non-formal distance learning programmes sometimes are also accompanied by work-related seminars and workshops, as in the on-the-job training programmes initiated in 1962 by the KSA.

According to the KSA's 1991 brochure, a total of 78 courses were taught in 1990 alone by the distance method of sending textbooks by mail to its 20,000 registered students and returning back the tutor-marked reports of the assignments, and conducting the final schooling sessions at the end of each course. The courses offered are on varied subjects such as quality control, accounting, management, computer operation and foreign languages. On the other hand, the Catholic Doctrine Correspondence Course offers a seven-week programme to teach basic doctrines in Catholicism. A series of correspondence texts are mailed every week to individual registrants free of charge, who send the completed answer forms to the Reverend of their parish so that they can be prepared for Chnstening in due course. The participation by non-government agencies in the development of distance education is expected to increase. Already there are many private institutions in Korea, especially for preparing students to take such tests as the College Entrance Qualification Exam, the Test of English as a Foreign Language (TOEFL), and the Graduate Record Exam (GRE) for graduate schools. Although regular class attendance has been the usual method of instruction, correspondence methods are being introduced. With increasing use of VTRs, it is likely such sources will eventually be produced on video-cassettes for future use.

Another source of non-formal expansion is found in the educational television network of Korea. Their programmes include history, various foreign languages, mathematics and the arts. Meanwhile, commercial television has also steadily increased production of programmes of a documentary nature and those dedicated to coping with social change. Moreover, as the economic conditions have improved and leisure time has increased, the production of programmes earmarked for the development of leisure time activities has likewise been stimulated. In most cases, these programmes are broadcast on the basis of their supporting reading materials, which are carefully edited and sold at book stores well in advance of the broadcast.

Far more significant, however, are the distance education projects in the field of formal education. There are two such institutions in Korea; one is the Air and Correspondence High Schools (ACHSs) and the other is the Korea Air and Correspondence University (KACU).

The purpose of the ACHS is to provide high school education to people who were unable to receive education beyond middle school because of their engagement in jobs or other reasons. In 1974, eleven ACHSs were established. In the past eighteen years, the number of schools has increased to fifty-two, while enrollment rose from about 5,800 to nearly 35,300. ACHSs are attached to the existing regular high schools which provide facilities and teachers for classroom instruction. Curriculum is basically the same as that of regular high school but some adjustment is made for instruction in ACHSs, which by its nature is heavily dependant on self-study and radio broadcasts. Students are asked to attend class every other Sunday, enabling those with jobs to earn and learn at the same time. Besides the specially compiled textbooks for their use, students are given guidebooks and self-learning materials published on a monthly basis for listening to radio broadcasts. To

obtain the ACHS Diploma, students must complete 204 units of study over the three grades of the course. These units cover fourteen subjects including Korean, Mathematics, English, Social Studies, Science, a second foreign language such as German, French, Chinese or Japanese, Physical Education, Music, Fine Arts, National History, National Ethics, Military Training and vocational courses. One unit represents fifty minutes of instruction per week per semester, and the students are expected to put in 1,224 hours of study each year, divided into self-learning (862 hrs), schooling (162 hrs) and radio instruction (180 hrs).

Radio instruction is broadcast in the early morning and the late evening. Everyday except Sunday, there is a half-hour broadcast for each grade, covering two subjects. Students are required to take notes and submit them to the teachers for marking. In addition to subject-oriented programmes, there are special programmes featuring counselling, motivation and recreation, which take up 10% of the total programming. About 62% of ACHS students are 18-25 years, while approximately 25% are more than 26 years old; about 82% of them have jobs and about 40% of ACHS freshmen want to continue their study in college; about 50% just want to finish ACHS and about 10% want to raise their salary or position.

Self-learning is based on specially-prepared textbooks and self learning materials. The ACHS textbooks contain basically the same content as those of regular high schools. But they are distinguished by the addition of supplementary learning materials. Self-testing exercises, for instance, may be included at the end of each unit. Students are provided with a pamphlet once a month, which includes these supplementary learning materials.

Classroom instruction, given at the schooling sessions every other Sunday, provides the students with an opportunity for face-to-face interaction with teachers. It is during this session that the students clarify the areas of study which were not understood through self-learning and radio instruction. The evaluation of student achievement is made in a variety of ways. At the end of each semester, every student has to take a written standardized test. Supplementary evaluation tools include the rating of assignments and note-taking of radio instructions. In addition, there is a graduation exam, leading to the high school diploma.

ACHS education programmes are operated in close coordination with the Korean Educational Development Institute (KEDI). KEDI is an independent, autonomous and government-funded educational research organ, established to carry out many practical research/development projects, including the production of educational TV and radio programmes for ACHSs and other elementary/secondary schools. Thus, even though there are already fifty-two ACHSs as separate entities throughout the nation, their content is based on the same set of radio broadcast lectures and evaluation tools prepared by the independent and professional organisation, KEDI. The advantages of the ACHS system in Korea are that it enables youth and adults who have jobs to continue their education; it helps adults who missed high school education to continue their study; and that it enables students to continue their study at low cost. The current fee for a year is equivalent to approximately US \$65 which is about one-sixth of the amount paid by regular high school students.

The Korea Air and Correspondence University was established in 1972 as a branch school of Seoul National University, offering two-year junior college courses in five departments. Nine years later, it had grown to a five-year university, offering degree course programmes leading to BA and BSc degrees. The next year saw it elevated to the status of an independent national university with nine departments. By 1984, the number of

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departments had grown to thirteen diverse programmes. It has been decided that four more departments will be added by 1992. This swift increase in departments and degrees offered means that the Korea Air and Correspondence University is responding to the perceived need of Korean society.

When it first opened its door, the KACU, then called the Korea Correspondence College, set its admission quota at 12,000. But nine years later, by 1981, the enrollment had grown to 48,000 and just one year later, when it became independent, enrollment shot up to 90,000. In 1990, the number stands at approximately 160,000 or 12.4% of the total university student population of Korea; the largest increase in university student population in Korea. The significant change in enrolment seems to have occurred as a result of the initiation of its five-year degree programmes in 1981. In spite of the enormous rise in enrollment, all applicants still cannot be admitted, mainly because the University had set strict admission quotas according to its capacity. As a result, applicants have always far exceeded the quota.

TABLE 3: Admission Quota and Applicants of KACU (1972-1991)

YEAR	Admission Quota (A)	Applicants (B)	Competition Rate (A/B%)
1972	12,000	55,206	4.6%
1973	12,000	17,056	1.4%
1974	12,000	45,148	3.7%
1980	18,000	51,162	3.2%
1981	30,000	100,064	3.3%
1983	31,000	70,526	2.3%
1984	33,000	77,954	2.4%
1985	34,000	81,829	2.4%
1988	34,000	90,005	2.6%
1990	49,000	82,046	2.3%
1991	64,000	80,721	1.3%

Courses in highest demand are Public Administration, followed by Business Administration, Agriculture, Domestic Science, Computer Science, Elementary Education, Law, Economics, Language Courses, (which include Korean, English, Modern Chinese, French), Early Childhood Education, Applied Statistics, Health and Hygiene, Trade and History. KACU has produced about 103,000 graduates from both its junior college and five-year degree courses. Of that number, 63,000 have been conferred bachelor degrees since 1985, when the first cohort of graduates from degree programmes successfully completed their studies. It is difficult to assess their employability since most of them are already in the work force. In fact, a look at the statistical breakdown of the students shows that nearly 90% of them already have jobs, indicating on-the-job improvement as well as upward mobility in some cases. Of this number, 29.3% are employed by business firms, 8.3% are teachers, 20% are civil servants and 3X2% are military service men. Housewives and those in other categories occupy 38.7% of the total students. With regard to the age range of the students, 41% of them are under twenty-five years of age. Another 25.6% are between twenty-six and thirty, while a very sizable 27% are between thirty-one and forty. The final 5.6% are over forty-one.

The central organisation that handles all of these students is divided into three parts.

The first, the education division, is made up of thirteen departments. The second is the Divisions of Academic and Students' Affairs, while the third is the Division of General Affairs which performs such functions as accounting, procurement as well as repair and maintenance of facilities. At KACU, there are also several affiliated institutions such as the Institute of Distance Education, the Students' Guidance Centre, the Computer Processing Centre, the Media Development Centre, the Library, the University Press, and the Publishing Unit. In addition, the University is assisted by the Management Committee which functions in an advisory capacity over the University's policy-making. It is their responsibility to advise the President on such matters as long-term development projects, as well as on administrative and academic affairs.

The Institute of Distance Education is mainly concerned with the research for overall development plans of the University, educational technology and teaching methods in distance education. The Institute also has responsibility to develop and maintain international exchange programmes with the sister institutions abroad. Through academic exchange and cooperation, the Institute tries to gather and analyze information necessary for improving the educational programmes of the University and advise the President on relevant matters. The Students' Guidance Centre is an important organization helping students resolve some of the difficulties inherent in their unique style of learning. It provides a counseling service for the needy students and regularly conducts aptitude tests for students. The Library started with its audio cassettes section from the early days of the University's foundation. since then, it has been functioning as a multipurpose university library for students as well as for faculties. Besides about 230,000 volumes of books and journals, it stocks all the tapes of the Radio/TV lecture programmes broadcast. The Computer Processing Centre enables the University to process vast numbers of student records. The data processing room has been equipped with both the large general purpose computers and micro-computers for students' use. In them are stored the records of matriculation, grades and graduation. At present the Centre is busy in developing the KACU's own CAI system. The Educational Media Development Centre, operating through the radio and television studios on the University campus, is responsible for the development and production of the broadcast lecture programmes and other audio-video instructional media, which are so vital to the KACU's educational system. This rapidly changing field demands constant attention in order to stay abreast of the latest developments of technology. The University Press publishes The University Newspaper more than forty times a year to provide students with detailed descriptions of the broadcast lectures' weekly timetable; the latest information on the various disciplines, and from time to time a column for special lectures; as well as study guides, and news within and outside the campus, which seem pertinent to students' university life. The newspaper reaches all students by mail and has established and maintained stable lines of communication among all members of the KACU community. The Publishing Unit also has the task of publishing and distributing all of the necessary learning materials, including the KACU textbooks and supplementary reading materials. By doing so, it takes advantage of the economies of scale from the consolidated coordination of so large a population of students. These books are authored by professors from KACU, Seoul National University and other co-operating universities.

The educational system of KACU works from matriculation to graduation as follows. Admission is limited by law to high school graduates or those who passed the high school-equivalency examination, They are selected on the basis of high school academic standing

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within the overall admission quota set by the university, with the exception that a part of the admission quota is reserved for government officers recommended by the heads of the government agencies. Due to the high dropout rate in the early stage, students are newly admitted to the second and third year classes. Students who have completed the required courses of two years at a junior college elsewhere are eligible for the relevant courses of the second or third year on the basis of the academic records they earned. Students usually register for fifteen credits a semester, three credits per subject. The entire process of teaching and learning is the result of a variety of activities that include assignments and self-study, radio and television lectures, attendance at face to face sessions, and the supplementary reading materials carried in the KACU newspaper.

Generally, the broadcast lectures are conducted by the authors of the textbooks over the Educational Broadcasting System (EBS), at fixed hours throughout the day. In the case of radio lectures, the hours of airing are 05:00 to 07:00, 16:00 to 17:00, 18:00 to 20:00, and 23:00 to 01:00, for a total of ten hours. TV lectures are broadcast for one hour a day except on Sunday. Broadcast lectures for one subject consist of twenty units, each unit lasting thirty minutes. Students unable to listen or view the programmes can visit the library at the University, or that of local study centres where copies of the audio and video tapes are available.

At the end of each semester, students are required to attend the summer and winter schooling. Schooling sessions are conducted at one of the KACU's some thirty-two cooperating universities and colleges in the region, lasting for a total of five days. During this period, the professors of the KACU or those of the cooperating universities and colleges hold classes to review what was taught by broadcast lectures, to provide laboratory work for science lectures, and to give students advice for self-study. Face-to-face communication between students and professors are increased through special lectures and lecturing tours. The media and methods employed in teaching at KACU courses are printed materials - correspondence textbooks, supplementary reading materials, and the University newspaper; broadcasts - radio and television broadcast lectures; audio-visual - recorded audio and video cassettes; schooling - obligatory attendance required classroom tuition, self-organized study group sessions at cooperating institutions; and special lectures by invited guest speakers.

Students are required to submit several reports on the assignments given by their professors. These reports are sent to the individual professor for correction and comment. They are returned back to the students for self-study and reviewing. The results of these assignments are also used for evaluation of the students' overall academic performance. Their academic achievement is also evaluated by means of two examinations, as well as the markings of the reports. The first exam is an objective test covering the broadcast lectures, administered directly by the KACU's Computer Processing Centre, whereas the second is a subjective essay examination conducted and evaluated by the professors of the institutions where the schooling sessions take place. National universities in various places are designated by the Ministry of Education as the cooperating institutions of KACU, while some private universities are contracted to fulfill the same role. As of 1990, a total of thirty-two cooperating institutions are functioning as the centres for the summer and winter schooling and examinations.

KACU has twelve regional study centres in the capital cities of provinces as well as twenty-two local study centres in smaller cities and districts. In the regional centres, professors of KACU and the cooperating universities and colleges, as well as assistants and

administrative clerks help students by offering counselling and general guidance for extra-curricular activities. The regional and local study centres also keep students in touch with each other. This is important to students who are isolated and studying under difficult circumstances.

.Bachelor degrees are awarded to students who successfully complete the course work with 140 or more credits and pass the qualifying examination for graduation. A diploma is conferred .to those students completing the junior college course with 80 or more credits.

Turning now to the financial side of the operation of the KACU, it spent 19.7 billion Won, the equivalent of approximately US \$27 million in 1990 for its total operation. Of this amount, about 11% was spent for broadcasting lectures and about 12% went to administration costs of the institution. Approximately 50% of the total budget is subsidized by the Government, the rest being made up through student fees. The total education cost per student at KACU in 1990 was US \$182, which is less than one thirtieth of the average cost per student at conventional national universities, demonstrating that distance teaching at KACU has been significantly cost-effective. The most important factor making the system cost-effective was close collaboration between the KACU and the cooperating institutions which provided the University with the major proportion of the required professors and classrooms. The importance of this cooperative relationship cannot be emphasized too strongly. Were KACU to try maintain the buildings and faculty necessary for schooling on a year-round basis, educational costs would inflate enormously, putting it on a par with conventional schools. The centralized, mass production of standardized learning materials such as textbooks, audio cassettes and video cassettes for a large student population, benefitting from economies of scale, also contributes to further reduction of education costs. Table 4 shows the KACU's budget of expenditure by the source of revenue since its inauguration in 1972 to the fiscal year 1990.

TABLE 4: KACU's Budget by the Sources of Revenue, 1972-1990 (in US \$)

YEAR	Government's Subsidy	Students' Fees	Total Amount
1972	204,805	85,134	289,939
1973	399,428	59,766	459,154
1974	426,460	104,064	530,524
1975	538,113	152,504	690,617
1976	649,487	174,677	824,165
1977	1,031,626	185,123	1,216,750
1978	1,159,725	265,909	1,425,634
1979	1,563,212	338,814	1,897,026
1980	1,651,772	404,555	2,057,326
1981	2,525,067	2,023,004	4,543,072
1982	3,501,558	4,281,287	7,782,845
1983	6,454,497	5,722,018	12,176,516
1984	6,705,349	9,748,275	16,453,624
1985	8,131,802	12,079,468	20,211,271
1986	8,060,065	11,673,387	19,733,453
1987	8,792,573	12,282,337	21,074,908
1988	10,001,514	13,101,178	23,103,295
1989	12,062,216	11,298,837	23,361,052
1990	13,681,835	13,516,231	27,198,066

THE LEGAL STATUS OF DISTANCE EDUCATION

In order to establish a new national institution or to introduce a new system, it is necessary to introduce a law which is formulated and passed by the National Assembly, to obtain the legal basis of its enforcement. Then the Government takes implementation measures to bring the law into effect by formulating sub-laws as the presidential decrees, ministerial ordinances and regulations, and other ministerial directions. In introducing distance education the Government followed this practice.

On November 15, 1968, the 14th Amended Education Law (Law No. 2,045) was enacted to establish an air and correspondence college, as an affiliated school within Seoul National University, by inserting a new Article 114-2 in the existing Education Law. The Article stipulated that the air and correspondence college may be established within the national universities and the necessary matters for establishing such an institution shall be determined by a presidential decree. The Presidential Decree NO. 6,106, Presidential Decree on Establishment of the Korea Air and Correspondence College", was thus enacted on March 9, 1972.

Likewise, in establishing the air and correspondence high schools, Education Law again had to be amended for the 18th time, this time adding a new clause, Article 107-3, to the existing Education Law. This amended Education Law, Law No. 2,586, was subsequently enacted on the date of March 10, 1973, followed by promulgation of its enforcing Presidential Decree No. 7,008, of January 20, 1974. Therefore, at present two laws, three presidential decrees and three ministerial ordinances as well as several Ministry of Education directions which cover distance education schemes in this country are in existence.

These laws and ordinances, the Articles 128-6, 128-7, 128-8 and 128-11 (for KACU) and Article 107-7 (for ACHSs) of Education Law and Articles 2, 6 and 7 of Social Education Law, respectively, are basic legal grounds under which their enforcing decrees and ordinances, regulating both formal and non-formal distance education programmes, are formulated.

The articles of Education Law mentioned above explicitly describe the aims, nature and administrative structure of those two formal distance teaching institutions, KACU and ACHSs, describing each institution's status in the context of the nation's total frame of educational system and setting the requirements for establishing and operating such institutions. Article 128-6 of the Education Law, for example, proclaims the aims of establishing KACU as follows:

- i) to raise the people's overall education level by providing opportunities of higher education to those high school graduates who, for various reasons, cannot receive or interrupted college education;
- ii) to improve the academic and technological proficiency of people who are already engaged in profession by offering opportunities of further study in major areas of modern science and technology;
- iii) to render contribution to the welfare of the nation and society.

Concerning ACHS, its aims are summarized as:

- i) to provide secondary education for working youths and adults who could not receive high school education after graduating middle school;
- ii) to offer opportunities for further education as a process of life-long education, through distance methods;
- iii) to raise standards of academic achievement and realize the equity of educational opportunity for all people.

On the other hand, although there is no direct mention in the Social Education Law, there are articles pertinent to the nation's non-formal distance education programmes, which refer to the nature, aims, scope, guiding principles of curriculum development, etc., in offering all kinds of social education programmes (this term includes what is often called the adult continuing and further education programmes in other countries). These articles establish the legal grounds of the non-formal distance education programmes. Article 7 of the Social Law reads: as to the curriculum methods and lengths of non-formal education programmes, the organizer of the programmes shall determine at one's own disposition, unless otherwise prescribed in this law or other relevant legal provisions.

As to the dates of enactment and amendment of these laws, decrees and ordinances, it is rather difficult and confusing to trace them back one by one, because in most cases they underwent frequent revisions. Education Law, for an instance, was enacted first on December 31, 1949, but has undergone more than thirty revisions since. The 30th Amended Education Law enacted on March 8, 1991, is the one now in enforcement.

As far as the legal provisions that make specific reference to distance education in this country are concerned, however, revisions have not been so frequent. In the case of those legal provisions for KACU and ACHSs, such revisions of related articles in the Education Law had taken place only once or twice since its first enactment. The first legislative disposition to introduce distance education institutions in this country was to promulgate the 14th Amended Education Law, which inserted a new article, Article 114-2, in existing Education Law, on November 15, 1968. The first revision of this provision was made by instituting several new articles, Articles 128-6, 128-7, 128-8 and 128-11 in the 23rd Amended Education Law, which came into effect on December 31, 1981. These articles are the ones still in enforcement.

The reason for this revision of the Education Law was rather simple and obvious in that it aimed to pave the way for establishing an independent identity of the KACU, separating it from Seoul National University and elevated its status from a junior college to that of a degree-offering university. In fact, the Korea Air and Correspondence College (KAC) ceased to exist as a branch school of Seoul University and it became an independent national university offering nine degree-course programmes, from the academic year of 1982, as was proscribed in the law.

Likewise, the enactment of the 16th Amended Education Law (insertion of Article 107-3) was intended to create the distance teaching high schools in this country in accordance with the mandatory provisions of its enforcing by-laws such as "Presidential Decree No. 7,008 on Establishment of Air and Correspondence High Schools" of January 4, 1974, and "Ministry of Education Ordinance NO.335 on Enforcement of the Presidential Decree on Establishment of ACHSs" of February 22, 1974, as well as "Ministry of Education Ordinance No. 394 on the Qualifying Examination for Graduates of ACHSs" of September 25, 1976.

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It will be worthwhile to note that the whole picture of the distance education system in this country has evolved to keep pace with the rapidly developing nationwide telecommunication networks. In the foreseeable future, it is expected that the wider use of the national telecommunication networks including Educational Telecommunication Net may become a reality. The Presidential Commission for Educational Reform made a special reference to the national policy on distance education, in its Final Report, submitted on December 31, 1987. The Commission set ten major policy lines for the nation's educational reform, recommending that distance education programmes of both formal and non-formal forms should be expanded to promote the people's lifelong learning which is prescribed by the Constitution as a responsibility of the state.

OVERVIEW, AND CURRENT SITUATION

Aim and Objectives of Distance Education

The officially stated objectives of distance education in this country can be seen in the following quotes:

To bring up those competent persons capable of rendering useful contribution to the nation and society, by providing those citizens who either finished or interrupted a certain level of school education, and who wish to continue their further study in a certain academic discipline and professional area, with opportunities for higher education of junior college or of university level (An unauthorized word for word translation of Article 128*6 by the author of this Report).
Article 1284 of the Education Law.

National and public high schools may establish an attached air and correspondence high school, and concerning to the requirements, curriculum, instruction methods, years for completion and other necessary matters for the operation of such a high school shall be stipulated by a presidential decree.
Article 107-3 of the Education Law.

The qualification required for admission to the KACU shall be either graduates from a high school or those of holding its equivalent qualification; and the completing years of study at KACU shall be 2 years for junior college courses and 5 years for degree courses, respectively.
Article 128-8 of Education Law.

Those who complete successfully the junior college level courses at KACU or at the Open Polytechnics Colleges shall be regarded as the person having an equal qualification, comparable to a junior college graduate. And to those who pass the graduation qualifying examination after having successfully completed the whole course of university level at KACU or at the Open Polytechnics Colleges, a bachelor degree shall be conferred in accordance with the provisions prescribed by a presidential decree.
Article 128-10.

The KACU aims at raising the people's overall education level and bringing up those competent persons capable of rendering useful contribution to the nation and society, by providing opportunities of higher education, through distance teaching methods, to those high school graduates or people having its equivalent qualification who, for various reasons, cannot receive or interrupted education beyond the level of high school.

Article I of the KACU's Academic Charter.

Control, Organizational and Management Structure of Distance Education

As indicated earlier, the supervising authority in operation of distance education programmes in the Republic of Korea is exercised in two distinctive forms according to the nature of each programme. The administrative power of establishing and supervising formal distance education institutions is exercised exclusively by the statutory bodies which are the state or municipalities. On the other hand, any attempt to organize and run non-formal programmes is open to anybody, and even encouraged by the Social Education Law. Accordingly, the structure of the governing bodies of distance education in this country reflects these distinctions. While the operation of KACU is under direct supervision of the Ministry of Education, ACHAs are administratively supported by the Board of Education of each province.

Therefore, when referring to distribution of responsibilities in administration of distance education schemes in this country, two distinctively different supervision lines can be observed within its management structure. One line reflects the direct supervision pattern from the Ministry of Education to KACU and the other line is for ACHSs, which shows the pattern of a four-phase supervision, from the Ministry of Education on the top, and flowing to the phases of KEDI, Provincial Board of Education, and each ACHS at the bottom.

But in practice, both KACU and ACHSs enjoy a free hand in managing and operating their own programmes, except such things as the appropriation of the Government budget, appointment of full time staff, and the like.

In other words, although ultimate responsibility for administering, setting academic standards, resource planning, managing, and disseminating information on the nation's total distance education schemes should revert to the Ministry of Education, actual powers are delegated largely to the University authorities themselves and the Provincial Board of Education.

Financing Distance Education

As a general rule, the educational budget is comprised of the revenue and expenditures of the Ministry of Education; the local autonomous bodies; and state and public schools; PTA's account ("Parents-Teachers Association" is the voluntary body to assist school education); and the student governing account of universities. The Ministry of Education's budget is divided into general and special accounts. The general account consists of recurrent operational costs, grants for local education, and grants and subsidies for national universities and public schools and also for its subsidiary organisations. The budget of national university hospitals and special investment in education pertain to the special accounts of the Ministry of Education. The major source of revenue for local education is a grant from the Ministry of Education, supplemented by entrance fees, tuition fees, transfer from general account, sales of properties and local education tax. The special account of the District of Education finances compulsory education at the elementary level and the Provincial Board of Education finances secondary education. Compulsory education takes 56% of the total budget for local education. The PTA budget is managed by each school and is the source of revenue for allowances and research funds for teachers, student governing, experiments,

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and the like. The Ministry of Education's budget in 1990 amounted to 5,062 billion Won (US \$6.93 billion), accounting for 22.3% of total Government budget (22,689 billion Won = US \$31 billion), the second largest next to the budget for national defense. Of this amount, 78.2% (3,960 billion Won = US \$5.42 billion) went to local autonomous bodies in the form of grants to support the financing of local education. A total of 83% of the MOE's budget is spent to finance elementary education.

Naturally, the budget appropriation for KACU in 1990 barely reached 9.9 billion Won (approximately US \$135 million), which means that the KACU spent barely 67,130 Won out of the Government fund per student. This amount, some 67,100 Won per head (US \$93), is far less than one thirteenth of public educational expenditure for a corresponding conventional national university student (US \$2,880) in the same year. The problem of such disparity existing between distance and conventional national universities is a cause of deep concern.

Geographical Coverage of Provision of Distance Education

Korea is a very small country but has a relatively large population scattered throughout the country. The nation is divided into fifteen administrative units, one Special city (Seoul), five Municipalities (Pusan, Inchon, Daegu, Kwangju and Daejon), and nine Provinces (Kyunggi, Kangwon, Choongbuk, Kyungbuk, Choongnam, Chuubuk, Chunnam, Kyungnam and Jeju. Distance learning students of the formal and non-formal programmes are scattered throughout all these regions, with the following distribution.

TABLE 5: Distribution of KACU and ACHs Students by Region

REGION	KACU Students (Number, Percent)	ACHs Students (Number, Percent)
Seoul	50,030 (33.7)	8,071 (27.8)
Pusan	11,964 (8.0)	2,165 (7.4)
Inchon	6,283 (4.2)	1,268 (4.3)
Daegu and Kyungbuk	14,550 (9.8)	3,052 (10.5)
Kwangju and Chunnam	10,353 (7.0)	2,985 (10.3)
Daejon and Choongnam	7,306 (4.9)	1,162 (4.0)
Kyunggi	19,742 (13.3)	2,030 (7.0)
Kangwon	5,405 (3.6)	1,897 (6.5)
Choongbuk	4,116 (2.8)	1,428 (4.9)
Chuubuk	5,793 (3.9)	1,352 (4.7)
Kyungnam	10,507 (7.0)	1,956 (6.6)
Jeju	2,584 (1.78)	575 (1.98)

Source: KACU 1990 and KEDI's Statistics of ACHs 1991.

Meanwhile, it is difficult to figure out the numbers of non-formal distance learning students by region, but those institutions offering non-formal distance education programmes also operate their own local branches for counselling service, suggesting that the same applies. For instance, the Korean Standard Association has nine branch offices in ten localities.

Instructional System and Media

The methods of teaching and learning employed in ACHSs and KACU reflect the multi-media approach. At present it is common practice, in both KACU and ACHS, to combine the use of broadcast lectures based on the correspondence materials with face-to-face instruction in classrooms and written assignments for comment and marking. In the case of KACU, the use of audio and video cassettes is an alternative means of broadcast lectures. The following elaboration may clarify this;

Instruction by radio broadcasts is an essential and integral part of the ACHS education. Regular radio programmes are on air 360 days a year. The frequency of radio broadcasts is decided on the basis of time allocation projected in the ACHS curriculum. In addition to these regular programmes, there are also occasional programmes such as special overview, guidance and motivational programmes, which amount to about 10% of total programmes. These are broadcast at the beginning and end of each semester. KEDI is responsible for producing these radio programmes by professional staff at its own facilities. KEDI then sends the recorded tapes to the Korean Broadcasting System (KBS), which operates a nationwide network in collaboration with the Educational Broadcasting System (EBS), for transmission. Every other Sunday, the ACHS students are required to attend classroom sessions, offered at high schools with which the ACHS is associated. These regular high schools are in most cases public high schools. The teaching is also provided by the teachers of these high schools, on a contract basis of extra pay for their additional duty. Testing and evaluation of the students' achievement is carried out by such staff during the period of schooling. Self-study using the specially developed textbooks ought to be the pivotal element of learning in any form of distance education. Therefore, ACHS textbooks are developed so as to form the basis of the students' self-study. That is to say, the ACHS textbooks are compiled with special consideration of the restriction of personal contact, the complementary function of the other educational media employed, and the curriculum content of regular high schools. The additional description of regular high school textbooks and the inclusion of self-test items at the end of every unit of the textbooks are good examples of this. KEDI also provides monthly self-study materials for each subject.

As in many distance teaching universities, the primary medium of instruction at KACU is print-based. These materials are developed in most cases by faculty members, but a considerable number are co-authored by external staff, either from Seoul National University or other cooperating institutions. This is not surprising, given the relatively small academic staff at the University, with a total of ninety-one professors and forty-eight teaching assistants. Besides the printed materials, radio/television broadcast lectures also play vital roles in the system of teaching and learning at KACU. However, the on-air time made available to the University is restricted to the hours of early morning, early evening and late night, which is not always convenient for KACU students. In addition, the number of programmes now offered at the University is some 500 units of courses, such that the broadcast hours of 7:00 to 9:00 a day for radio, and one hour per week for television, are far from sufficient. Although the increased use of audio and video cassettes has helped to fill the void, there is no substitute for broadcasts during the hours when students are fresh and their mental condition is at a peak. Therefore, the University is now faced with the necessity of increased broadcast hours within the total broadcast hours of EBS. Thus, the need for an exclusive broadcast channel for the University has been given high priority.

The University decided in 1987 to develop as the format for package programmes twenty recorded audio-cassettes per course, accompanied by the corresponding textbook. The purpose was to augment the course work and to fill an ever increasing deficiency of broadcasting hours. By virtue of the economies of scale, the price of one package without a textbook was kept to less than 5,000 Won (approximately US \$7). Thus, extensive use is now being made of packaged programmes to enhance teaching. Copies of all audio and video materials are being produced in mass for the use of students who were unable to listen or view the original programmes that went to air. In this context, the audio and video cassette programmes play a very important role in the instructional system of KACU.

In contrast to ACHSs students, KACU students are required to attend a five-day schooling session (three days of classroom tuition and two days of assessment) at the end of each semester. The schooling is held at the University's thirty-two cooperating institutions as well as at its own campus and regional study centres. A recent survey showed, however, that difficulty in obtaining permission from the employer to attend these schooling sessions was one of the major factors restricting students' attendance. This in turn increased the dropout rates. Thus, the University's recent decision to offer as an alternative mid-term evening and weekend schooling may reduce the severity of the problem.

Prompted by the rapidly developing electronic communication technology in the nation, the University has recently decided to develop its own electronically controlled communication system so that such innovative new media such as CIA and CATV can be utilized as a tool for effective learning at KACU. As the first step to this end, in 1991 at least one computer terminal and one facsimile set was installed at the office of each department and every regional study centre. The hope is that in the near future the practice of two-way communication between teachers and students will become commonplace and, with the aid of these new media, the quality of distance learning enhanced. These new media have so far been utilized only for the convenience of administrative purposes such as transmitting and receiving files of official letters. Nevertheless, increasing numbers of students are showing an interest in utilizing such equipment as a means of question and answer between teacher and student.

There are two current assessment systems at KACU. The subjects with accompanying schooling sessions require the "First Part Examination", which is conducted in the form of an objective test (70%), and the "Second Part Examination" of an essay type (30%). The subjects which do not include schooling sessions require the "First Part Examination", an objective test (70%), and evaluation of the student's report of the written assignment (30%). As is readily noticeable, the assessment system of KACU relies heavily on objective testing done through computer marking. In spite of many advantages and merits of this method, many of those at KACU have been pondering the validity of this evaluation system for university level education.

Research Activities in Distance Education

For various reasons, the outcomes of research activities in distance education in this country have not been widely disclosed. Therefore, the research projects listed in the Appendix, which are conducted either by KACU faculty or else by KEDI staff, may be but a small part of the whole scene. A total of 193 articles on the relevant areas of distance education are reported here, of which 171 were conducted by KACU during 1977-1990, and the remaining 22 survey reports were published by KEDI during the same period.

Enrollment in Distance Education

Some basic statistics are provided in the following Tables:

TABLE 6: enrollment in Distance Education by Level

Name of Institution	No. of Institutions	No. of Courses offered	Level of the Courses	Full time Students	Part time Students
KACU	1	427 (13 Programmes)	University	148,650	-
ACHS	52	15 (3 Programmes)	High School	28,941	-
KSA	1	78	Non-formal	-	19,9093
CCC*	1	1	Non-formal	-	120,000

* Catholic Doctrine Correspondence Course

TABLE 7: enrollment Ratio of Distance Learning Students Non-distance Learning Students

Level of Courses	Number of Distance Learners (A)	Number of Non-Distance Learners (B)	Total Number Students (C)	Ratio (A/C) %
University	148,650	1,046,166	1,194,837	12.40
High School	28,941	2,283,806	2,312,747	1.24

Source: Compiled from figures by the Ministry of Education and KEDI.

Meanwhile, the number of graduates from each of the following distance teaching institutions varies considerably from year to year, according to the drop-out rate and other factors. Therefore, the following Table is only to give an overall picture on the annual out-puts from those distance teaching institutions in the country and also the accumulated number of their graduates.

Name of Institution	Number of Graduates in 1990	Number of Graduates Per Year (average)	Accumulated Number of Graduates
KACU	7,768*	8,100*	63,567*
	274**	2,300**	39,540**
sub-total	8,042	11,590	103,107
ACHSs	10,846	7,050	112,817
KSA	16,233	4,060	70,000
CCC	90,000	90,000	230,000

TABLE 8: Number of Graduates from Distance Teaching Institutions per Year

*Denotes the number of university level course graduates.

** Denotes the number of junior college level course graduates.

The numbers listed for KSA and CCC only reflect the registrants who successfully completed the course offered, since both institutions offer non-formal distance education programmes.

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International Affiliation and Cooperation

KACU has participated positively in the activities of the following national and international organisations related to distance education. KACU is an institutional member of The Korean Association of Adult Education; The Korean Council of University Education; The Korean Society for the Study of Distance Education; The Asian Association of Open Universities; the International Council for Distance Education; the International Council of Adult Education; the Asian-South Pacific Bureau of Adult Education; the International Council for Innovation in Higher Education; the All Japan Association of Private Universities Correspondence Education; and the National Association of University Continuing Education (U.S.A).

In addition, KACU has enjoyed a close cooperative relationship with the following distance education institutions abroad: the National Institute of Multi-media Education (Japan); Ramkhamhaeng University of Thailand; Fernuniversitat am Hagen (Germany); Dutch Open Universteit (Netherlands); The Open University of Taiwan, Republic of China; and The Universitas Terbuka of Indonesia.

KACU has also developed a cooperative relationship with such leading institutions of distance education as OUUK in the Great Britain, the Athabasca University of Canada, the University of the Air, Japan, and the Sukhothai Thammathirat Open University of Thailand.

Growth and Expansion

In view of the educational reality confronting the people of Korea today, it is essential that an educated citizen be independent, creative and conscious of morality. Having depicted the profile of an educated Korean, the goals to be achieved by education are to foster a sense of cultural identity, to provide for the sound growth of a whole person, to develop creativity and to prepare youngsters for a rapidly changing future society.

It is in this context that the final recommendations of the Presidential Commission for Educational Reform made specific reference to the promotion of the distance education system as an integral part of the nation's ten priority educational policies in encouraging the people's lifelong learning practice. The recommendation inter alia stressed the following three points: to vitalise the lifelong learning function of schools by opening their doors as widely as possible, not only to their young students but also to the adult populace at large; to link education with vocation as flexibly as possible so as to ensure free tracking between the two; and to expand educational facilities so as to meet the newly emerging educational needs of people who have to adapt themselves to the rapidly changing surroundings of the technological world.

In the wake of its 20th anniversary, the KACU has set its own Five-year development plan, aimed at achieving the transformation of the total structure of the University into a more lucid and flexible one, lest people fail to recognise the University's unique identity as an institution of lifelong education and formal higher education. To this end, KACU will undergo structural change. The current system of five-year degree course programmes will be modified to four-year programmes to match these of conventional universities. The University will adjust its legal status to a full-fledged university, which offers Master's and PhD courses for advanced studies. The course offerings at the University will be expanded to initiate many new programmes for non-credit, and part-time students. The University will

strive to further enhance the quality of education by modifying the curriculum content and its structure to befit the special needs of the KACU students, most of whom are working adult learners. It will make active use of the course team approach in producing its television lecture programmes as well as its textbooks. By securing adequate numbers of physical, financial and human resources, the University will provide an exemplary model to the nation for the multi-media approach in education. The University will pioneer educational technology by introducing such innovative communication systems as the CIA, CATV, ISDN, and VAN into the actual fields of education. Finally, the University will exert its full efforts in solving and improving its immediate problems, such as securing sufficient classroom facilities and teaching staff to operate qualitative schooling sessions, the problems in assessing student achievement which relies too heavily on computer processed marking, and the problem of mal-functioning local study centres.

Problems and Issues

Some of the problems and current issues in distance education in The Republic of Korea today require obtaining the necessary classrooms and quality teachers at the lowest possible cost. Moreover, the problem is likely to grow rather than decrease when massive numbers of people throughout the country seek education through distance teaching institutions.

The increasing demand for a technically well-trained work force exceeds the resources of conventional institutions, thus intensifying the need for distance-taught technical courses. As they are now designed, the amount of laboratory work offered is insufficient and needs improvement.

The goal of education should not be confined to the mere acquisition of knowledge. The necessary socialisation that comes from interaction between teacher and student as well as between the students themselves is perhaps one of the most difficult tasks for distance education to achieve. Yet the importance of developing this interaction must not be underestimated. Although the recognition of this malfunctioning has come largely from the point of view of the students, its effects are just as harmful to the teachers. Just as students of distance education must learn essentially in isolation, so too must the teachers prepare and teach their lessons in isolation. The stimulation that results from interaction is indispensable for faculty as well as students. It is for this reason that the KACU has increasingly shown great interest in introducing the new media that will enable two-way communication between them. As the need for more and improved media production grows, the faculty is being called upon to work cooperatively as a team with other staff members which may include such diverse groups as educational technologists, engineers, camera crew, artists and producers. But in reality, many of those faculty members are reluctant to work in such a way. All too often disagreements have a decisive effect on quality production, resulting in frayed nerves, damaged pride, and ultimately, a flawed production. The introduction of a functional course team approach in the process of planning and producing distance education media in this country is an urgent necessity.

Although the causes may vary, high dropout rates are a recognized problem of distance education the world over. The case of Korea may be among one of the world's highest. The importance of pertinent measures to reduce the current high dropout rate of seventy to ninety percent at KACU cannot be over-emphasized.

APPENDICES

Ongoing Research Activities:

- 1) *A Survey on Development and Utilization of Instructional Media for Use of Distance Teaching.*
The survey is scheduled to continue for 3 years, and the research funds will be partially borne by the Ministry of Education.
- 2) *A Feasibility Study for Course Team Management for ETV Production.* After many years of heated debate, KACU has just come to a decision to introduce, on an experimental basis, the course team approach in producing its television lecture programmes. Therefore, this is a trial effort to find out the effectiveness of course team approach in improving the quality of their ETV programmes, it was learned.
- 3) *A Draft Projection for the Long Term Development Plan of the KACU, 4 Parts.* The project is said to be focusing on four basic problem areas affecting its desirable development: namely, the problem of establishing the university's unique identity, the problem of renovating its organizational structure, the nature and composition of its curriculum and the ways and means of media utilisation.

ABBREVIATIONS

AADEP	Australian Association of Distance Education Principles
AAOU	Asian Association of Open Universities
ABC	Australian Broadcasting Commission
ACHS	Air and Correspondence High Schools
ADB	Asian Development Bank
AEC	Atoll Education Centers
AIDP	Australian International Development Programme
AIOU	Allama Iqbal Open University
APEI	Asia and the Pacific Programme of Educational Innovation for Development
APEID	Asian Programme of Educational Innovation and Development (UNESCO)
ASPES	A Australian and South Pacific External Studies Association
AVEC	Audio-Visual Education Centre
BIDE	Bangladesh Institute of Distance Education
BTT	Basic Teacher Training
CCC	Catholic Doctrine Correspondence Course
CEP	Condensed Education Programme
CEID	Centre for Educational Innovation and Development
CES	Centre for Educational Services
CIDA	Canadian International Development Agency
CODE	College of Distance Education
COL	Commonwealth of Learning
CRTVU	Central Radio and Television University
CTSDC	Curriculum, Textbooks, Supervision Development Center
CES	Centre for Extramural Studies
CUHK	Chinese University of Hong Kong
CUT	Cutin University of Technology
CVC	Community viewing Centers
DDE	Department of Distance Education
DE	Distance Education
DEANZ	Distance Education Association of New Zealand
DEC	Distance Education Centre
DEEC	Distance Education English Course
DERRC	Distance Education Regional Resource Centre
DTEC	Distance Teaching English Course, Maldives
DTT	Department of Teacher Training
ESA	External Services Agency
HECS	Higher Education Contribution Scheme
HMG	His Majesty's Government
IACE	International Association for Continuing Education
ICDE	International Council for Distance Education
ICIHE	International Council for the Innovation of Higher Education
IDRC	International Development Research Centre
IGNOU	Indira Ghandi National Open University
IHTES	Interstate Heads of TAFE External Studies
ILO	International Labour Organization
IOE	Institute of Education
ITM	Institute of Technology in Mara

JSC	Junior Secondary Certificate
KACU	Korea Air and Correspondence University
KEDI	Korean Educational Development Institute
KSA	Korean Standard Association
LU	London University
MOEC	Ministry of Education and Culture
MOET	Ministry of Education and Training
NDE	National Department of Education
NFEU	Non-Formal Educational Unit
NIEMT	National Institute of Educational Media and Technology
NIME	National Institute of Multimedia Education, Japan
NTV	Nepal Television
ODA	Overseas Development Agency
OLI	Open Learning Institute, Canada
OLIHK	Open Learning Institute of Hong Kong
OPP2	Second Outline Perspective Plan
OU-UK	Open University, the United Kingdom
OUSL	Open University of Sri Lanka
PCP	Personal Contact Programmes
PNGADE	Papua New Guinea Association for Distance Education
PNU	Payame Noor University
PROAP	UNESCO Principal Regional Office for Asia and the Pacific
PRTVU	Provincial Radio and TV Universities
PTOC	Primary Teachers' Orientation Course
RTTP	Radio Teacher Training Project
RTP	Radio Tuition Programme
SAARC	South Asian Association for Regional Cooperation
SBP	School Broadcasting Programme
SICHE	Solomon Islands College of Higher Education
SIMs	Self-Instructional Materials
SLBC	Sri Lanka Broadcasting Corporation
SLC	School Leaving Certificate
SLIDE	Sri Lanka Institute of Distance Education
SLMs	Self Learning Materials
SOU	Singapore Open University
SPACE	School of Professional and Continuing Education
SPADE	South Pacific Association of Distance Education
SPOC	South Pacific Organizations Coordinating Committee
STOU	Sukothai Thammathirat Open University
TAFE	Technical and Further Education Colleges
TFYP	Third Five Year Plans
TTC	Teacher Training College
TVUs	Television Universities
UA	University of the Air, Japan
UGC	University Grant Committee
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Family Planning Association
UNICEF	United Nations Children's Fund
UPE	Universal Primary Education

UPNG	University of Papua New Guinea
USAID	United States Agency for International Development
USM	Universiti Sains Malaysia
USP	University of the South Pacific
UT	Universitas Terbuka
VAOP	Victorian Association of Off-Campus Providers
VOM	Voice of Maldives
VSO	Volunteer Service Overseas
WHO	World Health Organization

LIST OF NATIONAL COORDINATORS AND CONTRIBUTORS

Country	Name	Position/Address
Australia	Arger, Geoff	Assistant Director Distance Education Centre University of New England Aridale, N.S.W. 2351 Australia
Bangladesh	Haque, Shamsul	Professor Institute of Education and Research University of Dhaka Dhaka- 1000 Bangladesh
China	Zang, Jinping	Deputy Chief of the President Office of CRTVU Central Radio & TV University No. 83, Fuhsing Road Beijing, 100856 P.R. CHINA
Hong Kong	Dhanarajan, G.	Director The Open Learning Institute of Hong Kong 9-13/Fl., Trade Department Tower 700 Nathan Road, Mongkok, Kowloon Hong Kong
India	Datt, Ruddar	Principal School of Correspondence Courses and Continuing Education University of Delhi 5 Cavalry Lines Delhi - 110 007 India
Indonesia	Suparman. Atwi	Assistant Rector Universitas Terbuka Jalan Cabe Raya Pondok Cabe, Ciputat 15418 Indonesia
Iran	Zohoor. H.	Chancellor Payam-E-Noor Uni P.O. Box 19395-4697 Teheran Iran

Japan	Kato, Hidetoshi	Director-General National Institute of Multimedia Education 2-12 Wakaba, Chiba-shi Maihama-ku, Chiba 261 Japan
South Korea	Kim, Synghan	President Society of Distance Education Korea Air and Correspondence University #169 Dongsung-dong, Chongro-ku Seoul 110-791
Laos	Chanthala, Khamtanh	Vice-Minister Ministry of Education and Sports Vientiane Laos
Malaysia	Ahmad, Qasim	Director Centre for Off-Campus Studies Universiti Sains Malaysia Minden, Penang 11800 Malaysia
Maldives	Brahmawong, Chaiyong	Professor of Education School of Education Sukhothai Tharnmathirat Open University 9/9 Muangthong Dhani Road Nontaburi 11120 Thailand
Myanmar	Maung, U Min	Director-General Department of Higher Education Thaton Road, Yangon Myanmar
Nepal	Prebbles Tom	Professor and Head Central Department of Curriculum and Evaluation Faculty of Education Tribhuvan University Kirtipur Campus, Kathmandu Nepal
New Zealand	Shrestha, Gajendra Man	Director and Associate Professor Extramural Studies Extramural Centre Massey University Palmerston North New Zealand

Pakistan	Siddiqui, Shaukat Ali	Professor of Education Faculty of Education Allama Iqbal Open University Sector H-9, Islamabad Pakistan
Papua New Guinea	Guy, Richard	Co-ordinator - Education Studies Department of Extension Studies The University of Papua New Guinea Box 320 University P.O. Papua New Guinea
Singapore	Dhanarajan, G.	Director The Open Learning Institute of Hong Kong 9-13/FI., Trade Department Tower 700 Nathan Road, Mongkok, Kowloon Hong Kong
University of South Pacific	Mathewson, Claire	Director Extension Services University of the South Pacific USP Center, Extension Serices P.O. Box 1168, Suva Fiji
Sri Lanka	Kothalawala, D.E.M. (Mrs.)	Professor of Education Education Division Faculty of Humanity and Social Sciences The Open University of Sri Lanka Newala, Nugegoka Sri Lanka
Thailand	Brahmawong, Chaiyong	Professor of Education School of Education Sukhothai Thamrnathirat Open University Nontaburi 11120 Thailand
Turkey	SoZEN, Nur	Professor and Coordinator International Relations Ankara University Tandogan Meydani, Ankara Turkey
Vietnam	Tan, Tran Dinh	Rector Vietnam National Institute of Open Learning Vien Dao Tao Mo Rong NHA B-101 Phuong Bach Khoa Quan Hai Ba Trung Hanoi Vietnam

LIST OF PROJECT TEAM MEMBERS

A Survey of Distance Education in Asia and the Pacific

A study conducted by:

The National Institute of Multimedia Education (NIME), Japan

Director-General: Hidetoshi Kato

Advisors: Marco Antonio R. Dias, UNESCO, France
Hidetoshi Kato, NIME, Japan
Muhamad Selim, UNESCO-PROAP, Thailand
Leonardo De La Cruz, UNESCO-PROAP, Thailand
Keith Harry, ICDL, Open University, U.K.

Members of the Research Team:

Japan:

Project Director: Suk-Ying Wong, Ph.D., Associate Professor, NIME

Takehiko Kariya, Ph.D., Associate Professor, NIME

Aya Yoshida, M.A., Associate Professor, NIME

Atsushi Hamana, M.A., Associate Professor, Kansai Women's Junior College

Satomi Sato, Ph.D., Lecturer, Seitoku University

Keiko Yoshihara, M.A., University of Tokyo

International visiting Scholars:

Chaiyong Brahmawong, Ph.D., Professor, Sukhothai Thammathirat Open University, Thailand
Joanne LaBonte, Ph.D., JSPS visiting Research Fellow, U.S.A.

Geoff Arger, M.Ed., Assistant Director, DEC, The University of New England, Australia

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Round Table: UNESCO-Standing Conference of Rectors, Presidents and Vice Chancellors of the European Universities (CRE), UNESCO 1989.
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UNITED NATIONS EDUCATIONAL,
SCIENTIFIC AND CULTURAL ORGANIZATION

DISTANCE EDUCATION IN ASIA AND THE PACIFIC:

COUNTRY PAPERS

VOLUME II
LAOS - PAPUA NEW GUINEA

A Study conducted by
The National Institute of Multimedia Education, Japan

Director-General: Hidetoshi Kato
Project Director: Suk-Ying Wong

Editorial Committee:

Geoff Arger
Joanne LaBonte
Suk-Ying Wong
Chaiyong Brahmawong
Takehiko Kariya
Aya Yoshida

The Division of Higher Education of the UNESCO Secretariat produced, during 1983-1989, thirty-six titles in the series *Papers on Higher Education* (a complete list of titles appears on the last page). From 1990, this series will continue in a new form *New Papers on Higher Education* with two sub-titles: one, *Studies and Research* and the other, *Documentation of Meetings*.

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1. *Evaluation Procedures used to Measure the Efficiency of Higher Education Systems and Institutions*. A study conducted by: The International Association for Educational Assessment. Coordinator: W.B. Dockrell. UNESCO 1990. ED-90/WS-10 (English only).
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Note by the Secretariat

The present collection of country papers on Distance Education in the Asia and Pacific region is a detailed and wide-ranging study which confirms the wealth of resources available in this specific geographical area.

The collection complements a survey of resources related to distance learning in the same region. Both have been produced for UNESCO by the National Institute for Media Education, Japan.

This document links to other surveys on existing distance learning resources carried out by UNESCO in Africa, Latin America and on a worldwide basis. In these activities, our partner has been the International Centre for Distance Learning at the Open University, U.K.

At the UNESCO International Consultation on Higher Distance Learning, held at Deakin University, Victoria, Australia from 6-11 September 1987, great importance was attached to the efficient collection and dissemination of information and statistical data. Therefore, the various surveys constitute an effective response to that call for the sharing of resources.

Throughout its long involvement in distance education, UNESCO has accorded priority to components which must underpin the development of these systems of learning: clear policy-making, the pooling of resources, the necessity for a strong infrastructure of personnel to assure academic standards and the need to develop close linkages between higher distance education and the world of work.

If these priorities are observed, distance education can continue to evolve and expand through the design of innovative programmes, experimentation in the uses of advanced technologies and because of its capacity to attract new learners with extremely varied profiles and educational needs.

In view of these challenges, it is hoped that increased information on higher distance education resources, both human and material, will help strengthen the exchange of expertise in this field.

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PREFACE

Distance education in Asia and the Pacific has been 'booming' in the past few decades. In order to respond to increasing demand for highly trained human resources for socio-economic development in the countries in the region, the government of each and every nation has paid special attention to the possibilities of distance learning in higher education. Moreover, rapid technological innovations require continuing education even for university graduates.

Thanks to the contemporary "electronic revolution," people who are in need of such educational opportunities can have relatively easy access to university teaching by means of broadcasting and telecommunication. It was within this context that the Asian Development Bank, in cooperation with the UNESCO regional office, initiated an intensive seminar on distance education in 1986, the outcome of which was compiled in two volumes.

The National Institute of Multimedia Education (DIME), with a mission of innovating higher education especially with utilisation of various media, was more than happy to accept conducting the overall survey of distance education in the region when such a request came from UNESCO in 1990. Though we could work with our colleagues in the area only by correspondence, they were extremely cooperative and eager to participate to make this project successful. On behalf of the Institute, I must express my deepest gratitude and respect to all contributors, without whom this research could not be possible. At the same time, I appreciate the assistance and advice given by UNESCO, from both its headquarters in Paris and its regional office in Bangkok, with whom we have thoroughly enjoyed our collaboration. I also thank the International Centre for Distance Learning (ICDL) of the Open University in the United Kingdom who has provided helpful comments throughout the project. It is our pleasure and honor if this publication can serve to further advance distance education not only in the region but also in other parts of the world.

Hidetoshi Kato
Director-General
National Institute of Multimedia
Education, Japan

INTRODUCTION

In recent years, distance education has emerged as one of the most feasible modes of instruction that aims at bridging many of the educational objectives and practices between the formal and the non-formal sector. For the last decade, distance education has attracted educators and policy makers as a new measure of educational provision. Especially in Asia and the Pacific, distance education institutions and/or programmes have developed rapidly and played an important role. Despite its importance and wide scope of practice in many countries, not enough is known about distance education in this region.

In light of this, UNESCO and the National Institute of Multimedia Education (NIME), Japan have completed this project, "Distance Education in Asia and the Pacific" to add to our knowledge of where distance education stands at the present time. We initiated the project by inviting experts to write a case study and to co-ordinate the gathering of questionnaires about distance education institutions in their countries. For various reasons, we could not survey the entire Asian and Pacific area, but through the responses collected here, perhaps a comprehensive picture of the region emerges. The resulting case studies are attributed to their individual authors, while the survey has been compiled by us based on the efforts of the country coordinators and those who completed the questionnaires. Our efforts are therefore presented in two parts. The first part contains the case studies outlining the growth and environment of distance education. The second part presents a compilation of the surveys covering distance education institutions throughout the region.

Regarding the surveys, a few methodological points should be noted. Our primary objective is to systematically organize and present the data based on the information supplied to us by each country. As such, the amount of detail varies. Furthermore, in most cases the entries have been proofread by the participants and some have been subsequently updated. Thus, the information included here is as current as possible. However, the process of compiling questionnaire responses runs the risk of discrepancies. Therefore, we apologize for any errors that might exist.

Our editing policy of the case studies has been directed to presenting a uniformity of style. Aiming at clarity and coherence, this has in some cases required the editing of length. Regardless, we have fully retained each author's individual viewpoints, and hope the integrity of their work remains intact. In addition, we have included all references and citation information provided by the authors, including those which refer to sources in languages other than English. Compiling international references presents a challenge of accuracy due to varying customs of bibliographic format. Interested readers may therefore wish to contact authors directly for more comprehensive citations.

This is only the beginning. We have much more to learn about distance education and its potential in the future. The information collected here will hopefully serve not only as a general reference for people unfamiliar with this innovative mode of learning, but will also inform and inspire those who are involved in planning and decision-making in distance education, as well as administrators, educators, and academics. This work is the result of a collaboration among many experts and practitioners in the field. We thank them for the research they have done and for sharing their knowledge and experience. As pioneers in a young and growing field, we have come far in expanding the horizons of conventional education. By taking a moment to reflect on the past and present of distance education, the insights we gain from sharing our experiences may spur us on to an auspicious and enlightened future.

The Editorial Committee
National Institute of Multimedia
Education (NIME), Japan

Distance Education in Asia and the Pacific:

LAO PEOPLE'S DEMOCRATIC REPUBLIC

Khamtanh Chanthala

THE NATIONAL CONTEXT FOR DISTANCE EDUCATION

The Lao People's Democratic Republic (LAO PDR) is a land-locked country of 236.800 square km. bordered by China and Burma to the north and northwest, Thailand to the west, Kampuchea to the south and Vietnam to the northeast and east. The Mekong River running from China to Kampuchea forms much of the border with Burma and Thailand. Extensive mountain ranges cover most of the country except for the plains of Boloven's Plateau in the south. Over two thirds of the land area is covered by forests and woodland with some valuable wood species and many known mineral deposits. A substantial proportion, however, is reduced by the farming activities of shifting cultivators.

The economy is one of the least developed in the world. Production is overwhelmingly agrarian. Exploitation of agricultural development and minerals is restricted by lack of skilled labour; a poorly educated work force; lack of domestic capital and inadequate transport as well as communications. There is only limited access to world markets, the goods and the services which might hasten national development. GDP was estimated at US \$180 in 1988. The effect of liberalising the economy, however, is apparent in the many new shops and private enterprises opening up in Vientiane and in larger provincial centres.

Expenditure for education as a percentage of total government expenditure, was 9.1 % in 1981, then rose to a maximum of 9.6% in 1987, but fell to a minimum of 6.7% in 1988, yet rose again to an estimated 8.6% in 1989.

Total expenditure for education as a percentage of Gross Domestic Product (GDP) has fluctuated over the last decade in a narrow range from 2.4% to 3.9%.

According to UNESCO data, the total expenditure for education as a percentage of total government expenditure and as a percentage of Gross National Product (GNP) was less than in all other countries in the region.

The population of Laos is small and widely dispersed. According to the 1985 Census, there were 3.58 million Lao, comprised of 1.76 million males and 1.82 million females. They reside in a territory of 236.800 km square, giving a very low 15.1 persons per km square. At that time 44 % of the population was under sixteen. At an average annual growth rate of 2.9% the population is now in excess of 4 million. The ethnic diversity of the population has at times obstructed efforts to promote social and economic development. The dominant group Laos Lum (lowland people) comprises 68% of the population. Lao Theung (upland) and Lao Soung (highland) make up the remainder. Special educational solutions are being sought to ameliorate inter-group differences.

The Lao PDR is a country of ethnic diversity. The majority of the population belongs to the Lao Loum group, and has a mother tongue which is Lao, or very close to the national Lao language. The other part of the population speaks a variety of languages which bear little resemblance to Lao. While recognising the rights of all ethnic groups to maintain and develop their morals, customs and culture, the goals of national unity and equality impose

the use of the Lao language in public life and in schools of all levels. This language barrier adds to geographical obstacles since the non-Lao speaking ethnic minorities live (some sparsely) in less accessible mountainous areas.

Schooling in Lao PDR is provided for a total period of eleven years for general education, comprised of primary (five years), lower secondary (three years) and upper secondary (three years). Pre-school education is provided in creches for children between two months to two years of age and in kindergarten for children between three and five years of age.

At the primary level, for the school year 1989-90, the gross enrollment ratio was estimated at 102% and the net enrollment ratio at 63%. This is the result of an over-age enrollment, together with a high number of repeaters. For the same school-year, the gross enrollment ratio was 33% at the lower secondary level and 12% at the upper secondary level.

There are separate teacher training colleges for pre-school, primary, lower secondary and upper secondary teachers as well as for arts, vocational and sports teachers. Within each of these teacher training systems, there is a multiplicity of programs. These programs are being reduced in number of types and also systematised. In 1987-88, 7,107 primary school teachers (34.9%), 955 lower secondary school teachers (13.8%) and 361 upper secondary school teacher (16.5%) were not sufficiently qualified to teach at their current level. The situation continues to be the same in the absence of adequate in-service training facilities and programmes.

Vocational schools at the upper secondary level offer programmes for preparing skilled/semi skilled workers for a variety of occupations, providing lower level manpower for the various economic sectors. Technical colleges offer programs at the post secondary level for training middle level technicians. Higher technical colleges, also at the post-secondary level, offer programs for preparing higher level technicians with more theoretical and scientific knowledge, compared to the products of technical colleges. The National Polytechnical Institute offers programmes at the university level for preparing professional engineers.

Although the Lao PDR has no chartered university, there are three institutes offering programmes at the first degree level, the University of Medical Sciences; the National Polytechnic Institute; and the Institute of Pedagogy (IUP), which trains upper secondary school teachers.

Three main types of nonformal education programs are offered: literacy training for out-of-school adults, usually organised at the village level using regular teachers and volunteer students of secondary schools; upgrading programmes for the general adult equivalence in full-time compressed programmes, such as three years for primary education; and upgrading programs for Government cadres, organised at both provincial and district levels for upgrading educational qualifications to lower/upper secondary levels.

A large scale programme of educational reform is being launched. The objectives are the universalisation of primary education by the year 2000 in the spirit of the world Declaration on Education for all adopted in Jomtien in 1990, and the improvement of the quality and efficiency of primary and secondary education.

Lao PDR lacks essential communications infrastructure not only in the mountain regions, but even between major urban areas. The access to outlying villages is extremely limited as existing roads are in poor condition. Many of the remote mountain villages have no roads at all and rely on river boats, or walking trails for access. Postal services are

considered unreliable. Damage to mail and long delays in delivery are common occurrences. Radio receivers are rare in these villages as the mountainous country makes radio reception unreliable. As few villages have electricity, batteries are the only power source available for appliances. The telephone network has severe limitations and does not extend past the urban boundaries of the few major population centres. These centres are interconnected only by military-operated Morse code links or by radio-telephone via the capital Vientiane.

HISTORY AND BACKGROUND

In the framework of the 1962 educational reform, as one of several innovative projects, decentralised and autonomous elementary schools called "centres ruraux d' éducation communautaire" were created in rural and remote area of the then kingdom of Laos. As pedagogical aid for these schools, the Ministry of Education has established an educational radio service with assistance from Japan (radio-sets), the United Kingdom (radio-studio), Australia, Malaysia and Federal Germany (personal training). Starting on 4 November 1963, two radio programmes were broadcast on Radio Nationale Lao each day. They were thirty minutes long. The morning programme - 8:00am to 8:30am - targeted elementary school children, and the evening programme - 20:00 to 20:30 - was for adults. Five years later, owing to the lack of penetration of Radio Nationale, the lack of maintenance service for radio-sets, and the state of security in the country, the frequency of these programmes were reduced and the coverage was restricted to the Vientiane Plain. In addition to educational radio, a monthly educational review, Suksa (Education) was produced and distributed to school teachers.

After the founding of Lao People's Democratic Republic on 2 December 1975, an Information Unit was established under the Ministry of Education. This unit produced educational radio programmes, educational television programmes and a monthly educational newspaper, Suksamay (New Education).

Educational broadcasting started in 1977, on the basis of one thirty minute programme a week, aimed at informing local authorities, parents and teachers of the important role of education in the development of human resources. The educational newspaper Suksamay was issued for the first time in December 1980. It was meant for teachers, parents and the general public to inform them about, and orient them toward, education.

Educational television, limited to one fifteen minute programme each week, was broadcast by TV Nationale Lao for the first time on 27 November 1987. Generally the content was aimed at teacher training (how to teach various subjects) with some programmes specifically for teachers and students.

THE LEGAL STATUS OF DISTANCE EDUCATION

At present, there is no institutionalised use of distance education for any degree qualification in Lao PDR. The educational use of the various media are more for information than instructional purposes. Nevertheless, these initiatives form the basis for developing a distance education delivery system in the future.

OVERVIEW OF CURRENT SITUATION

Aims and Objectives

Although the aims and objectives of distance education are not clearly stated, they can be derived from the intent of the educational radio programmes. The Ministry of Education broadcasts three educational radio programmes for half an hour on Radio Nationale Lao each week, between 17:30 - 18:00 on Monday, Wednesday and Friday. There is an arrangement with six provincial radio stations in Oudomxay, Houaphanh, Luang-prabang, Xiengknhouang, Savannakhet and Champassak to re-broadcast the programmes locally. At the present time, because of technical problems, Oudomxay, Houaphanh and Xiengknhouang stations do not use the programmes. A close relationship exists between the Information Unit, the Department of General Education, and the Department of Teacher Training Institutions in determining the programmes. Teacher training, pre-school activities (stories, singing, art), morality, social and physical education, and study skills are the main content areas. All the radio programmes are produced at the obsolete Information Unit Radio-Studio donated by the United Kingdom in the mid-1960's under the Colombo Plan. Five teacher-trained staff prepare the radio programme with assistance from both the Director and the Deputy Director of the Information Unit. They comprise three teacher/journalists, and two women on-air presenters. One of the teacher/journalists acts as an equipment operator and technician. This staff makes honest attempts to produce quality programmes under very difficult circumstances. The results, however, are technically poor.

The Ministry of Education Information Unit publishes 5,000 copies (reduced from 10,000 the year before) of the eight-page (sixteen pages before) educational newspaper each month. Its content broadly covers information, discussions, comments on educational methodologies, scientific activities, history and literature, Lao language, commentaries on schools teachers and children, and sports. It is meant for teachers, parents and general public. One major problem is the long delay of distribution. The postal services are almost non-existent in the remote areas because of the poor road network and certainly cannot operate in the rainy season.

The use of educational television by the Ministry of Education is limited to one fifteen minute programme each week. This programme is broadcast by TV Nationale Lao each Friday evening at 20:50, the programme being produced either at the national studio or by a TV national production staff on the spot. Generally the content of the programme is aimed at teacher training (how to teach various subjects) with some programmes specifically for students and parents. Like radio, the Information Unit works closely with the Department of General Education, the Department of Teacher Training, the Research Institute for Educational Science and the Teacher Training Institutions, for the conception of programmes. The Information Unit does not have enough production equipment and is still dependent on TV Nationale Lao. It hopes to have its own production equipment in the near future and plans to produce its programmes in-house and send them on tape to the TV stations for broadcasting. Four staff with teacher training and experience work on TV programme production with assistance from both the Director and the Deputy Director of the Unit. They comprise two teacher/journalists and the same two female on-air presenters from radio. As with radio, real problems exist for the Ministry of Education in reaching the people via television.

In addition to the Ministry of Education Radio and TV programmes, Radio/TV National broadcasts a number of educational programmes or information programmes that have an educational potential.

On radio, these broadcasts include news and current affairs, music, theatre, health, education, and agricultural extension. French and Russian language programmes, prepared in collaboration with the Ministry of Education Information Unit, the Institute of Research for Educational Science and the Teacher Training College, are also broadcast for thirty minutes four times a week. The range of Radio Nationale is said to be approximately 1000 km during the day in short wave, and 150 km on standard band, but it is difficult to receive the signals in some northern provinces in the morning. Hours of transmission are 5:00am - 10:00am, 10:30 - 2:00pm and 4:30pm - 11 :00pm. The facility has thirty technical staff and five producers.

On TV Nationale, documentaries are the main source of information. Apart from the programme of general nature, it offers three specific programmes on agriculture, forest and irrigation (fifteen to twenty minutes once a week), health care, and education as described earlier.

The government-owned TV Nationale is the only television channel available in the country and its programmes are only received in Vientiane, Savannakhet in the south and Luangprabang in the north. Each provincial station has its own management but close cooperation exists with the national station. Programmes recorded in Vientiane are sent by air to provincial stations. Vientiane and Savannakhet stations use a 1 kw transmitter providing a range of 70-80 km. Luangprabang station is smaller.

Few opportunities exist in the provinces for educational broadcasting. Provincial radio stations broadcast some locally produced programmes in addition to the mainly nationally-produced programmes. The two provincial TV stations in Savannakhet and Luangprabang broadcast programmes mainly produced in Vientiane.

Financing Distance Education

The Information Unit receives from the government a yearly budget about 7 million kips (US \$10,000), the minimum required for the recurrent expenditure. This amount is very low. Comparing it to the 1989 education budget, it represents less than 1%. In addition, the Information Unit since 1982 receives an allocation of about \$10,000 a year from UNICEF, and technical assistance (personnel training) from UNESCO, France and Germany.

Radio and TV National are both fully funded by the government, via the Ministry of Information and Culture, to the extent of about 100 million kip (\$142,000) per year. In addition there is technical assistance from UNESCO, SIDA, Soviet Union, Australia, France and Germany.

General constraints are poor telecommunications. International telecommunication links are very poor and do not reach beyond Vientiane. Domestic inter-urban radio links give a restricted operator-to-operator service of poor quality. Improvements, however, have been planned.

The distribution of materials is also a problem, made difficult by the poor condition of the roads, which are inadequate and often only usable in the dry season. Maintenance facilities are poor and transport cost high. There are no local newspapers. Vientiane

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produces two daily newspapers (8,000 copies and 2,500 copies each). They are distributed to each of the provincial centres, arriving some days to some weeks after their publication date. There is a shortage of electricity supplies. Only Vientiane, Savannakhet and Thakhek have adequate supplies. Luangprabang and Pakse have hydropower plants that operate below capacity. Elsewhere local electricity generation is intermittent and severely restricted due to insufficient diesel fuel.

There is also a shortage of qualified personnel. Development and improvement in Lao PDR in general is hampered by the lack of a skilled work force. The need for vocational and on-the-job training is well recognised. There is a lack of domestic funds. As one of the ten poorest countries, there is a desperate shortage of funds to make the necessary improvements to the infrastructure. The ethnic diversity of the population is also an issue. There are over sixty different ethnic groups. Of the many minority languages, few have a written form. The difficulty is to teach minority children to speak and read Lao, which is the national language and the medium of instruction.

The lack of funds prevents the Ministry of Education from publishing enough copies of the educational newspaper for all teachers and administrators. The production of educational radio/television programmes is hampered by antiquated radio equipment, the lack of video production equipment, and insufficiently trained staff. For National Radio TV, the geography of Laos is a major factor limiting the effectiveness of its national media. Antiquated equipment, a lack of adequate staff training, and strong competition from Thai radio and TV inhibits its potential effectiveness. Old, poorly-maintained transmitters limit the reception radius of the local radio broadcasters.

Potential Distance Education Activities

The Higher Educational specialist of the UNESCO Regional Office for Asia and the Pacific, undertook a mission in Vientiane in November-December 1988 to study the potential and possibility of distance education in Lao PDR. His report asks the following questions: For whom would a distance education service be established? How would the Lao government set about establishing such a system?

On the first point the report stresses the potential of this medium of instruction for non-formal education, with programmes emanating from established institutions, such as teacher training institutes. There is a suggestion also that costs would decrease with increased enrolments, making distance education a cheaper proposition than enrollment in formal courses.

The value of distance education in providing cadre upgrading courses and in restraining long-standing graduates is also stressed. The report suggests that except for teachers, other professions are probably not yet ready for such programmes. As far as teachers are concerned, the report expresses the view that radio could be an especially valuable tool in increasing the number of teachers in implementation of Government policy. Certainly, distance education programmes are used effectively in many countries for these purposes, allowing people to continue working and to study at the same. The view of the report is that, to date, the concepts of distance education and education programmes delivered via the electronic media have become confused. It stresses the dependence of distance learning on printed course and support materials and the ability of lecturers and students to

communicate easily via the mail. The suggestion is that the print media is a less expensive vehicle for providing education programmes than radio and/or TV and the report opts for several institutions developing separate distance learning programmes, with the provision that such institutions be provided with additional staff and equipment. Radio and TV are seen as potentially valuable adjuncts to institution-run distance learning programmes, rather than as stand-alone services.

In addition to this decentralization of programme planning and delivery, there is a suggestion that a control authority could be established to ensure contact in the provinces and to assist with the provision of teaching materials, such as videotapes and audio tapes, for colleges in areas that have electricity.

The report recommends that various teacher-training institutions should be able to set up distance education programmes in accordance with the Government policy to upgrade the quantity and quality of the teaching profession. While no figures are included in the translation of the report made available, the report suggests that after an initial large outlay, the cost of programmes would decrease.

The report concludes by recommending an in-depth study of all the matters raised above, and suggests that external assistance should be sought immediately to investigate the potential for multimedia education.

The Ministry of Education reaction to this Unesco sponsored study is, in principle, favorable. There is no doubt that distance education programmes and radio and TV education programmes could be of great value in educating and informing the population. They would also provide the opportunity for working people to train and re-train for their professions.

Distance education methods have a great deal to offer the in-service training programme for teachers in Lao PDR. To be effective, however, the strategy must be simple and based on the needs of various local regions. The high-technology delivery methods used elsewhere are not appropriate for this country with its geographical obstacles, lack of communications infrastructure, shortage of funds and other constraints described earlier. In this context, the Ministry of Education is formulating a five year project (1992-96), with assistance from UNICEF, for upgrading untrained/unqualified primary teachers in selected districts located in the remote rural region. Each teacher would study through distance education methods for two years, thereby causing the least disruption to class-room activities, teaching activities and teacher dislocation. The strategy planned consists of integrated components such as self-paced learning modules. The emphasis will be on new teaching methodologies, multigrade-teaching, remedial teaching skills, student assessment, and also, teacher in-service support services. Experienced teachers will be appointed as educational guides for the teachers in training. Another component would be summer school work shop. On campus activities conducted by advisory teachers (counselors and pedagogics) during the summer vacation and mid-year workshop would provide an opportunity for the teachers for intensive instruction as well as a chance to interact with their peers.

In addition to the need to upgrade teachers qualifications, the revision of the primary school curriculum in the framework of the 1991-2000 educational reform has begun. It is envisaged that the new curriculum will be completed and ready for implementing at the beginning of the 1993-94 school year. This means that the entire body of primary school teachers (some 20,000) will have to be introduced to the new curriculum. With this prospect, distance education technology, with support (educational newspaper, educational

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radio, audio cassettes, educational TV, videotape) could be used both for public relations, information, and for delivering this new curriculum to all teachers concerned. In the long term, with economic and social progress in the country, there will be a possibility of distance education for adult and non-formal education, for vocational and life skills training, and for supplementary activities for primary and secondary schools.

MALAYSIA

Ab. Rasid Mat Zin

THE NATIONAL CONTEXT FOR DISTANCE EDUCATION

Malaysia is a developing nation comprised of West Malaysia (Peninsular Malaysia) which has thirteen states, and East Malaysia which is made up of two states, Sabah and Sarawak. The Peninsula covers an area of 50,793 square miles while East Malaysia covers some 76,755 square miles. East and West Malaysia are separated from each other by the South China Sea. In terms of development, West Malaysia is far ahead of East Malaysia.

Malaysia gained independence from the British Government in 1957 and faced many inherited problems such as the uneven structure of the economy, the lack of educational opportunities and facilities, as well as unstable social and political conditions. The pluralism of Malaysian society, with different ethnic origins, cultures, religions and languages, does to a certain extent affect national unity. In addition to this problem, the nation is further divided by the identification of certain racial groups through the function of their economic activities and the areas where they live. Prior to 1971, economic development was concentrated mainly in accelerating the growth of the economy through investment in infrastructure, agriculture and rural development. While this strategy did serve to considerably strengthen the economy of the country, it did not deal adequately with the main social and economic imbalances among the ethnic groups in Malaysia.

The imbalance that exists among the various ethnic groups with regard to participation in economic activities, access to educational opportunities and other social benefits, threatened the stability of the nation. The civil riot on May 13, 1969 showed clearly that economic policies and programmes geared mainly to increasing the growth of the economy would not meet the needs of the nation. It demonstrated that any development effort that did not deal sufficiently with the needs of the poor and address the issue of economic and social imbalance between racial groups would lead to growth without equity and result in a nation divided; between those who share in the benefits of growth, and those who do not. The trauma of the incident marked the point where Malaysia had to put every effort towards establishing the integrity and unity of her nation. Thus a system that could ensure a better sharing of the nation's wealth, an equitable access to education and other social benefits had to be devised. Critical evaluation of past policies and approaches were therefore carried out, resulting in a national ideology that was formulated as a basis for national unity.

One of the many faceted approaches towards achieving national unity in the context of the national ideology was the development of a socio-economic foundation that would provide a viable and adequate participation for all races in the development processes. Such a framework was enunciated in the New Economic Policy (NEP) which committed the nation to reducing and eventually eradicating poverty by raising the income levels of workers and increasing employment opportunities for all Malaysians, irrespective of races. This is done to accelerate the process of restructuring society, so as to reduce, and eventually eliminate the identification of race with economic functions. It was recognised that such a process of transformation of the Malaysian society had to be achieved within the context of an

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expanding economy so that no particular group would experience any loss, or feel any sense of deprivation. It was also recognised that education and the training sector are the most important social investments that will benefit the country in the long run.

Policies and programmes for education and training continued to be geared towards fostering national unity and increasing the participation of all Malaysians in national development. The most significant development in the field of education during the 1971-80 period was the progress made towards the establishment of a national education system. During the decade, curriculum in schools was developed not only to impart knowledge and skill but also to instill and inculcate values and norms which would contribute towards national unity and a disciplined society. During the 1980's, the overall objective of education was to promote national unity, and to produce knowledgeable, trained, and skilled individuals to meet the manpower requirements in science and technology, management and related skills.

The Malaysian government spends millions of dollars on education. Educational expenditure increased from 12.42% of the total government expenditure in 1980 to 17.53% of the total government expenditure in 1989. In terms of percentage of the Gross National Product (GNP), educational expenditure in the 1980's ranged from 4.99% to 7.63%. A large proportion (over 55%) went to primary and secondary education, 29-35% was allocated for other educational needs, which left some 10-16% for the higher education sector. Within this latter sector, total expenditure in the external programmes was indeed very small, at 0.60% of the total national educational expenditure. At the Universiti Sains Malaysia (USM) level, expenditure on the Off-Campus academic programme ranged from 3.4% in 1972 to 2.5% in 1990, although the actual university amount increased more than elevenfold from that of 1972. There was no mention that the budget should be paid directly from the National treasury to the Off-Campus Centre.

TABLE 1: USM Recurrent Expenditure, 1971-1990

YEAR	Salary	Service and Supply	Total
1971	2,145,206	2,328,633	4,473,839
1972	3,755,335	5,871,404	9,626,739
1973	6,993,108	6,027,171	13,020,280
1974	10,716,563	6,378,513	17,095,076
1975	15,181,286	5,977,684	21,158,970
1976	15,709,256	6,703,286	22,412,542
1977	20,902,277	7,045,039	27,947,316
1978	19,838,039	9,262,971	29,101,010
1979	19,676,981	11,363,957	31,040,938
1980	24,121,534	16,425,815	40,547,349
1981	30,286,802	21,737,975	52,006,777
1982	34,576,527	24,847,674	59,424,201
1983	40,451,530	21,292,150	61,743,680
1984	46,666,313	21,446,231	68,112,544
1985	54,486,813	25,086,896	79,573,709
1986	61,988,990	33,892,710	95,881,700
1987	65,849,327	33,300,533	99,149,860
1988	69,365,427	35,970,277	105,335,704
1989	76,866,559	38,303,423	115,169,982
1990	83,442,923	39,345,061	122,787,984

TABLE 2: The Centre for Off-Campus Studies: Recurrent Expenditure, 1972-1990

YEAR	Salary*	Service and Supply	Total
1972	226,055	42,279	268,334
1973	371,648	62,985	434,633
1974	481,763	107,750	589,513
1975	613,176	128,750	741,926
1976	732,356	157,166	889,522
1977	991,087	144,994	1,136,081
1978	920,663	286,815	1,207,478
1979	952,810	202,050	1,154,860
1980	1,030,457	235,790	1,266,247
1981	1,050,548	397,020	1,447,568
1982	1,070,639	608,989	1,679,628
1983	1,090,730	341,833	1,432,563
1984	1,110,821	451,725	1,562,646
1985	1,231,371	412,935	1,644,306
1986	2,428,190	517,532	2,945,722
1987	2,693,860	521,248	3,643,860
1988	2,398,740	781,752	3,804,492
1989	2,209,450	547,609	2,757,059
1990	2,227,820	825,300	3,053,120

* Including prorated staff salary from the Schools/Centres involved in teaching off-campus students.

It was found that the activities in the Off-Campus programme had been conducted economically. Over the 1972-1990 period, the increase in the Off-Campus expenditure was 11.4 times that of 1972, lower than that of the university, at 12.7 times that of 1972. In 1990, the Off-Campus enrollment increased 12.7 times than that of 1972, whereas the USM enrollment only increased 7.5 times that of 1972.

Overall, the cost per student (c.p.s) per year in the Off-Campus programme was lower than that in the full-time on-campus programme. It was calculated to be at 13% of the annual cost required for one full-time student. Thus the cost to produce one graduate through the external mode was estimated at MYR 19,500 (MYR 1,500 per year x 5 years + MYR 12,000 per year x 1 year full-time). On the other hand a similar programme in the full-time mode would require around MYR 48,000 (MYR 12,000 per year x 4 years). Based on student intake, the average completion rate in the off-campus programme for the last nineteen years was around 52% . If the annual withdrawal rate of 25 % was set aside in the calculation, the average completion rate would be higher, at 60%. Considering that the completion rate of the full-time programme is at 100%, (though in practice, it normally would be less), the cost to produce one graduate in the Off-Campus mode is found to be lower. At the completion rate of 60%, it was estimated to be MYR 32,500.

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TABLE 3: Centre for Off-Campus Studies: Cost Per Student (C.P.S), 1972-1990

YEAR	Total Enrollment	Total Recurrent Expenditure	C.P.S
1972	223	268,334	1,203
1973	381	434,633	1,140
1974	543	589,513	1,085
1975	571	741,926	1,299
1976	763	889,522	1,165
1977	813	1,136,081	1,397
1978	781	1,207,478	1,546
1979	689	1,154,860	1,676
1980	757	1,266,247	1,672
1981	742	1,447,568	1,950
1982	937	1,679,628	1,792
1983	1,102	1,432,563	1,299
1984	1,109	1,562,646	1,409
1985	1,404	1,644,306	1,172
1986	1,822	2,945,722	1,616
1987	2,234	3,643,860	1,631
1988	2,449	3,804,492	1,553
1989	2,733	2,757,059	1,008
1990	2,847	3,053,120	1,072

TABLE 4: Universiti Sains Malaysia: Cost Per Student (C.P.S), 1971-1990

YEAR	Total Enrollment (on-campus)	Total Recurrent expenditure*	C.P.S
1971	647	4,473,839	6,914
1972	1,104	9,358,405	8,476
1973	1,521	12,585,405	8,274
1974	1,904	16,505,563	8,668
1975	2,092	20,427,044	9,759
1976	2,281	21,523,020	9,435
1977	2,247	36,811,235	11,932
1978	2,359	27,893,532	11,824
1979	2,529	29,866,078	11,817
1980	2,801	39,281,102	11,512
1981	3,412	50,619,209	14,835
1982	3,841	57,744,573	15,033
1983	4,545	60,311,117	13,269
1984	5,113	66,549,898	13,015
1985	5,914	77,929,403	13,177
1986	6,662	92,935,978	13,950
1987	7,149	95,506,000	13,359
1988	7,774	101,531,212	13,060
1989	8,121	112,412,923	13,842
1990	8,303	119,734,864	14,420
		Average	12,087

* Does not include off-campus expenditure.

Distance education does not exist at the primary and secondary levels, but there have been correspondence courses run by private institutions and by Government agencies. Until now distance education at the primary and secondary levels were not deemed necessary. Enrollment in the primary schools has always been very high. In 1980, for example, it was 93.61 % of all school age children, and it increased to 99.80% in 1990. In secondary schools it was 79.88% of the age group in 1980 and this increased to 82.86% in 1990. The dropout rate at the primary level is fairly low, at 11%. As a supplementary service to formal teaching, the Educational Media Service Division (EMSD) in the Ministry of Education provides educational television and radio programmes. EMSD is responsible for planning, development and dissemination of the media programmes.

At the tertiary level, the Government also sponsored the Off-Campus Programme at the Mara Institute of Technology (ITM), which was introduced in 1973. Its main objective was to produce more professionals and semi-professionals amongst the Bumiputra (indigenous group). ITM offers two distinct programmes: one is Off-Campus Study, which consists of face to face evening classes conducted at regional study centres; and the other is the Distance Education Programme which uses a combination of print, audio cassette and limited face to face seminar/tutorials in its delivery system. The four-year Distance Education programme offers Diplomas in Public Administration, Business Studies and Banking.

In the private sector there is Disted College in Penang, a private institution that caters for pre-university and university education. It acts as a regional study centre for several overseas institutions such as Adelaide College and Deakin University in Australia, and Leicester Polytechnic in Britain. It is affiliated with all these overseas institutions. Students can complete a major part of their tertiary education at the College before proceeding overseas. A number of other private institutions offering correspondence courses in Malaysia.

TABLE 5: Some Private Institutions Offering Correspondence Studies

<u>Name</u>	<u>Programme(s) Offered</u>	<u>Address</u>
West Giamorgan Institute of Higher Education	Diploma in Business and Management	Correspondence Section Institut Pendidikan Tinggi Adabi Peti Surat 387, 15740 Kota Bharu, Keiantin
Maktan Federal (Ahli Kumpulan Maktab Stamford)	Lower Certificate of Education (SRP) Malaysian Certificate of Education (SPM) High School Certificate of Malausia (STPM)	117 Julan Aminudin Baki, Taman Tun Dr. Ismail 60000 Kuala Lumpur
Institut Philips	LLB (external), University of London programme	14-2 Kompleks Udarama Jalan 3/64 A, Off lalan Ipoh 50350 Kuala Lumpur
Maktab Adabi Gaya Pos	SRP, SPM, and STPM	SA-2 Jln. Pantai Baru P.S. 1158, 59700 Kuala Lumpur
Sekolah Gaya Pos Utama	SRP, SPM, and STPM	338, Tkt 5, Wisma SYS, Jalan Raja Laut, 50730 Kuala Lumpur
Malayan Correspondence College	SRP, SPM, SPM(V), STPM, Malay, Chinese, Tamil, Accounting *t Bookkeeping	PO Box 145, 80710 Johor Baru

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The Off-Campus academic programme at Universiti Sains Malaysia (USM) is in fact the largest in the country that provides distance education at the tertiary level. The programme, leading to degree qualification, was started in 1971. It then offered courses in Humanities and Social Sciences. By 1973, Pure Science courses (Mathematics and Physics) were also offered to Off-Campus students. These were followed by Chemistry and Biology in 1974. Teaching of English as a Second Language has also been included in the Off-Campus programme. The teaching of English is mainly confined to the teaching of reading skills and techniques for doing reference and research work from English texts because the lectures and written assignments for all courses (except English) are in the National Language; and to extend the teaching of English to writing, aural and oral skills for the large number of students (350 minimum per level) would require a considerably larger number of English teachers than presently available. The rest of this report will discuss issues relating to the USM Off-Campus programme only.

Enrollment in local universities increased from ~6,410 in 1980 to more than double the figure, 60,010, in 1990. In percentage terms it was equivalent to an increase from 1.63% to 2.66% of the university age population. Total enrollment in the USM Off-Campus programme in 1990 was 2847 students or 4.35% of the total enrolment in local universities.

The National Education Policy, as enumerated in the Education Act, 1961, emphasises the use of the National Language (Malay) as the main medium of instruction. Also in line with the 1961 Education Act, Government and Government aided schools at the primary level which have been using Chinese and Tamil as the medium of instruction will continue to exist. However, greater emphasis was also given to the teaching of English as a second language. By the 1980's, all institutions from primary schools (with the exception of Chinese and Tamil primary schools) to universities used the National Language as the medium of instruction. Therefore the Off-Campus programme at USM also uses the National Language as its medium of instruction.

The structure of the education system in Malaysia consists of at least nine years of basic education, starting from Standard One at the age of six through Form Three at the age of fourteen or fifteen. Students take two years to complete upper secondary education and another two years for post secondary education before they can undertake a degree level programme in higher education institutions.

There are three types of primary schools: National Schools which use the National Language as the medium of instruction; National Type Chinese Schools which use Chinese as the medium of instruction; and National Type Tamil Schools which use Tamil as the medium of instruction. From secondary to tertiary level, the language of instruction is the National Language. After completing Form Four, pupils are streamed into either academic, technical or vocational schools. At post secondary level, students have several options: they can choose to enter matriculation or Form Six classes, enter a teacher training college, apply for certificate programmes in a polytechnic, or join the workforce.

When the Off-Campus academic programme started in 1971, it was clearly stated that students were required to do self-study at home most of the time. At intervals, they would be furnished with such materials as the syllabus and lecture notes for each of the courses registered. They would also be given reading lists appropriate to each course. In return, students were expected to work through the materials by doing activities such as reading the text, taking or making notes, attempting exercises, and completing assignments. Feedback from students took the form of postal and telephone communication.

Before the 1988 session, the Centre utilized tutor-conducted face to face tutorials at the regional study centres. The development of teleconferencing in early 1988 has changed this. The transition from the previous practice was neither abrupt nor total, however. In the first three years of teleconferencing, during the transitional period, tutor-conducted face to face tutorials were still maintained at a 50% level for lower level courses.

HISTORY AND BACKGROUND

Distance education programmes in Malaysia were first established in 1971 at the Universiti Sains Malaysia (USM), formerly known as Universiti Pulau Pinang. It was offered as a service section under The Centre for Educational Services of the University. At the initial stage of the programme, there existed some inequalities of opportunity for higher education for working adults. In 1971 Malaysia had four universities, including USM, and one which had antecedents before independence. In fact the later three universities were just in their infant stage. In 1971, the total number of university students in the country was only 1.7% of the total number of primary school pupils who were enrolled in 1958. When calculated as percentage of the university age group population of that respective year, enrollment was merely at 1.0%, indicating that 99.0% did not go to university.

Universiti Teknologi Malaysia was established in 1972, one year after the formation of the Off-Campus academic programme at USM. Additional universities were not established until 1983 when the International Islamic University was started and this was followed by the establishment of Universiti Utara Malaysia a year later.

When the Off-Campus programme was first started in 1971, its main purpose was to provide an opportunity for many working adults to undertake a university education. The programme was initiated by offering eight courses in Humanities and Social Sciences. Courses in Pure Sciences and Mathematics were introduced in 1973 partly to comply with the request made by the Malaysian Ministry of Education. In order to tap enough Bumiputra (indigenous) candidates into the science degree programme, Foundation Science courses were offered in the 1978/79 session with an initial intake of fifty-two students. In 1991, a total of 125 courses including Foundation Science are available to the Off-Campus students throughout the country.

During the early period of operation, students received lecture notes, supplementary readings and lists of textbooks as their study materials. This was supported by lecturers' visits to local study centres to conduct face to face tutorials. The November three-week residential school at USM's main campus was made compulsory to all students. A twenty-minute weekly radio programme, with free air time supplied by Radio Malaysia, was also aired. The development of study materials in the form of modules began in 1982. The module writing was done in stages and was fully accomplished by 1987. The approach adopted in the module writing was the course team approach, although not exactly the same as that of the United Kingdom Open University. Module writing training for the staff was conducted both locally and overseas in collaboration with Deakin University as well as Murdoch University in Australia, and with Open Learning Institute (now the Open Learning Agency), in Canada.

It was clear to The Off-campus Centre that low student enrollment and the relative inexperience of the staff could not justify the use of broadcast media in the delivery of the

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courseware. It was also evident, however, that it is a pedagogical necessity to have diversification in the use of media. Following the programme review in 1981, policy decisions were made to incorporate non-print media into the courseware. To date, three non-print components, radio, audio cassettes and video cassettes, have already been used at the Centre.

When the Off-Campus academic programme was first started in 1971, it was only an administrative unit under the Centre for Educational Services (CES) of the University. Later this Unit was separated from the CES to become an independent Unit and thus be directly responsible to the Senate of the University. In 1981, the Unit was subjected to a comprehensive review and a recommendation was made to upgrade it to a Centre with its own Board. In 1983, it became a Centre, which enabled it to compete equally with other Schools/Centres for money and other resources from the University.

When launched in 1971, the Off-Campus teaching programme offered only eight courses to seventy-six students as its first cohort. Currently the number of courses has grown to 125 in twelve different disciplines and the total enrollment has increased to nearly 3,000. As a service to the continuing education section, four management courses were recently offered as certificate, or audit, courses.

It should be noted that the USM's distance education programme is a rather rigid system in the sense that it imposes several regulations on students. Annual student intake could not exceed beyond 5% of the total intake into local universities. Students are required to have at least a minimum entry qualification, and written consent from their employer. School teachers must abide by the regulations imposed by the Ministry of Education regarding course selection. Non-teacher students are free to choose courses based on their interests, but again it is limited to what is offered. With regard to academic workload and length of study, students can decide to graduate within six to eleven years and must participate in a substantial portion (normally 70%) of the teaching-learning activities in order to qualify for the final examination of each academic session. Students are put under probation status if they fail to secure an overall average passing mark. They are only allowed to remain in such status for three consecutive times, after which they are automatically deregistered.

In the early days of its operation, the Off-Campus programme was fully dependent on the academic staff of the respective On-Campus Schools. Their services to the Off-Campus programme were either on a secondment basis; or as an additional workload on top of their On-Campus teaching commitment. In the latter case their Off-Campus workload was equivalent to 20% of their total workload. Starting from 1983, the Centre procured its own core of academic staff (as was required by the University's new policy), which is a feature that, as far Malaysia is concerned, is probably unique to USM's Off-Campus programme. Today there are forty-three full time core staff who are responsible for writing course materials, teaching and counselling. In spite of having this full time core staff, the Centre still depends upon teaching staff from various On-Campus Schools (mostly for non-science courses). About 25% of its teaching staff still come from the On-Campus Schools.

In order to strengthen the administration of the Centre, a full-time Director was appointed who is assisted by three Deputy Directors and fifty full-time general staff.

Achievement in the production of print materials has also been very encouraging. Previously, lecture notes were duplicated with the cyclostyle machine. The Centre has now

embarked upon the production of well-written materials using the latest technology. As an incentive to module writers, study materials which have been offered for two or three years are eligible to be upgraded to first editions. At present the modules for some twenty courses have been published as first editions.

The Off-Campus academic programme at USM is a government sponsored institution. Hence it offers service as a means of discharging its constitutional obligation to the nation. It is not meant to be a profit making body. The budget comes largely from public money. Student fees contribute only 20% to the total Off-Campus income. Although a fee is collected from the students, under the existing financial regulations of the Government, this revenue is returned to the Federal Treasury.

LEGALSTATUS OF DISTANCE EDUCATION

Report of the Cabinet Committee on the constitution of the University of Penang, 1969, made a provision for the University to award external degrees.

It was suggested that the new University should have power to grant external degrees. We agree and recommended accordingly. We understand that the University of Malaysia has this power, but has not exercised it on the ground that it lacks facilities. Our draft Constitution leaves it to the authorities of the University of Penang to decide when to exercise its power to grant external degrees.

The University of Penang is therefore committed by its constitution to provide an external degree programme to meet the demands for higher education. From this statement, it is clear that the external degree programme should exist within one of the existing universities.

OVERVIEW OF CURRENT SITUATION

Aims and Objectives

On November 8, 1970 the Academic Board of the University decided to start the Off-Campus academic programme. The specific issue that the Off-Campus programme at that time had to address was the shortage of graduate teachers in schools. In 1976 the University elaborated its objectives as follows:

to enable adult students, who for one reason or another do not get the opportunity to pursue higher education conventionally and to equip them with a degree qualification;

to make higher education programmes available to economically deprived and geographically isolated areas; to increase the rate of training of society members in order to fulfil demand for qualified manpower; and

to improve the productivity of those already in the workforce by upgrading their knowledge and skills.

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Organization Structure

As a public institution, The Centre for Off-campus Studies at USM is the largest provider of distance education in the country and operates under a centralised system. It is a division under the parent university. The Centre enjoys a status similar to other On-Campus Schools/Centres, with its own Board through which all its activities are organised and administered.

Under the present Constitution of the University, the Court, Council and Senate are the three principle governing bodies. The Court is the supreme governing body with the Chancellor as Chairman. The supreme executive body of the University is the Council, which provides for the custody and the use of the university seal. It also administers university property and manages the non-academic affairs of the University. The Senate whose chairman is the Vice Chancellor, is the highest academic authority; subsidiary to it are the boards of Schools/Centres with their various committees. Each of these boards is responsible, subject to the overriding authority of the Senate and the Council, for the administration and development of its respective Schools or Centres. Thus the Centre for Off-Campus Studies has its own board exercising the said responsibility.

The Board of the Centre for Off-Campus Studies is under the leadership of a Director, who is assisted by three Deputy Directors. One of the Deputy Directors is responsible for the production of course materials; the other two are in charge of the science and non-science programmes. To ensure that all the programmes run smoothly, a Chairperson is appointed for each programme. Being part of the University, the Centre is not detached from the On-Campus Schools/Centres, as other sections of the University provide teaching staff, laboratory, library, central printing and examination facilities to the Off-Campus Centre. A Coordination Committee chaired by the University's Deputy Vice Chancellor (Academic) ensures that there is mutual co-operation and co-ordination between the Centre and other bodies in the University. This Committee is responsible to the Senate. Its members consist of Deans/Directors of the Schools/Centres involved.

To support student learning, there are now eleven regional study centres throughout the country. At each regional centre, a part-time resident tutor is appointed. The main responsibility of resident tutors is to coordinate teaching and learning activities at their regional centres involving subject tutors, laboratory technicians and students. They are also expected to play the role of liaison officer between the University and the regional centre. Resident tutors report their work to the Director of the Centre.

The Centre also has a good working relationship with other institutions and agencies outside the University. These include the Ministry of Education, the Departments of Education at the state level, a number of High Schools and Teacher Training Colleges (which act as regional study centres), a number of public libraries, University of Malaya, Radio & Television Malaysia, the Malaysian Telecom Company and Pemas NEC (National Corporation & NEC Telecommunication Company Limited).

Financing Distance Education Programme

Being a statutory body, the University draws most of its yearly budget from the Government.

Financial commitment by the University to the Off-Campus academic programme is reflected in the yearly expenditure. It is estimated that at an average of 3.14% of the University annual expenditure is allocated to the Off-Campus Centre.

Geographical Coverage of the Distance Education Provision

The Centre has succeeded in its objective to take university education to rural areas such as the east coast region of the Peninsula and Sabah and Sarawak in East Malaysia. There are now eleven regional study centres throughout the country to support the teaching-learning activities of the students. Among the centres which have registered the largest student population are Kuala Lumpur and Penang, but some of the students in these urban centres may have also come from the rural areas. Regular activities are conducted at the Regional Study Centres, which act as local terminals for teletutorials, venues for continuous assessment, laboratories for science experiments, library and media services, and also meeting places for students.

Instructional System

The Centre uses several methods in the delivery of coursewares, including print, audio-visual and telecommunication. All instructions are given in the National Language (Malay).

Print is the principle teaching material used by the Centre, as is the normal practice at the Open University in the United Kingdom and most external teaching departments in Australia. It comes in two forms, either in the form of a comprehensive module, or as a study guide written around a selected text or a list of readings. Courses in science and mathematics are usually created in the former form while some non-science courses are written in the latter format. Printed materials are prepared in a structured and interactive style so as to meet the needs of students studying independently on their own at home.

The teleconferencing facility was introduced to the Centre in 1988. Each course has between four and eight teletutorial sessions in one academic year. Attendance at the session is compulsory but the attendance rate has been only around 80%. All sessions are conducted on weekends. Preparation and the timely despatch of the agenda for each course have helped to improve the effectiveness of these teletutorials. In 1990, an electronic writing board (EWB) was also added to the teleconferencing system. The EWB has further improved the quality of teaching as the graphics help to clarify the concepts taught. The biggest problem with teleconferencing thus far is the occasional line failure. Fortunately this is not very frequent, except in a couple of centres.

Audio cassette components are self produced and mailed to students together with print materials but clearly they are only used as supplementary materials and their usage is limited to a few courses.

The Centre started to produce video cassette components in 1988. At present some eighteen video tapes in various subjects have been produced. Six more are scheduled to be completed by the end of 1991. Video tapes which are to be borrowed by students are kept in the library at regional study centres. These video cassettes are used as supplements to the print media.

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Between two and four assignments are included in each course. These assignments are to be completed by the students as they progress through their study materials. Lecturers/tutors will mark and comment upon the assignments and then mail them back to students, normally within one to two weeks. Assignments contribute between 10% to 15% towards each student's final grade. Continuous assessments are held twice a year at regional centres: the first one in October and the second in February. These assessments also contribute about 10% to 15% of each student's overall grade.

In the natural science programmes, each course requires five to six experiments to be conducted at regional centres or at USM during the November intensive course. Most of the experiments are carried out at the regional centres. Students must submit laboratory reports for grading and this component will contribute 10% to 20% towards the final grade. Laboratory work at regional centres is supervised by part-time subject tutors.

The annual intensive course in November is compulsory as stated by University regulations in order to maintain a certain minimum amount of face to face interaction between lecturers and students. During the intensive course, students attend lectures, conduct experiments, do library work, meet their respective counsellors and interact with other students. At the end of the intensive course, the students preregister for new courses for the next session.

Final examinations are held in April every year. Students who fail certain courses in the final examination are allowed to take a supplementary examination in June. This examination carries 50% to 70% weightage of the overall grade.

Students who have collected a minimum of eighty-four credits in the external programme can enter full-time study on campus. Science students need to complete at least another thirty-six units (including a six-unit project) within two semesters during their full-time study in order to graduate. Arts students also need to complete an additional thirty-six units in order to graduate but do not need to complete a project. For those majoring in Sociology-Anthropology and in Geography, these thirty-six units also include a four-unit field work activity.

Research Activities

Research activities in the area of distance teaching has yet to make a real impact at the Centre. Research activities can be classified either as institutional or individual research groups manned by staff members. Some research work on distance education has actually been done elsewhere by our staff members for their Doctoral or Masters degree dissertations. Financial support for these projects came from University short term grants or from outside agencies.

Enrollment of Students

In 1951 school teachers represented 83.4% of the student population. Since then the number decreased gradually until in the 1988/89 academic session the percentage of school teachers in the Off-Campus programme was 59%. Teachers remain, however, the single largest occupational group in the programme. This is followed by administrators (16%) and clerks

(9%). The remaining 16% are working in sixteen different occupational groups, such as in the armed forces, the police force, nursing service, the mass media, and technical fields.

Nearly half (48.3%) of the student population fall within the 30 to 34 year old age group. Those between 25 to 29 constitute around 24%. The third largest population (14%) belongs to the group between 35 and 39. The number of students in their early twenties and forties is very small, forming only 1.6% and 1 % respectively. About 13.7% do not specify their age. The gender ratio is roughly one female student to four male students. The average income of all students is somewhere between MYR 750 to MYR 1,000.

Students need to accumulate at least 120 credits for graduation. One unit credit is roughly equivalent to 50 hours of work. The 120 credits are divided into two parts: the first 90 credits must be accumulated externally within five to ten years; and the second 30 credits will be accumulated during the one year on-campus full-time study. During the external mode students are allowed to register for a maximum of eighteen unit credits. In this system the maximum period of study is eleven years.

In 1990, total enrollment of Off-Campus students was 2,847 and all were studying part-time. At the USM level, the ratio of external enrollment to internal was 1:3. At the national level, however, the ratio is small, roughly one external student to thirty full-time students. The intake of students into the external programme has been increasing from year to year, reaching its peak at 707 in 1986. The number has decreased slightly since then. The Centre has so far produced 2232 graduates at an average of 140 graduates per year.

International Affiliation

The USM Off-Campus programme has established both formal and informal relations with a number of distance education institutions from various parts of the world. Some of these bodies include aid agencies, as well as sister institutions conducting courses through distance teaching techniques.

A five year development programme was launched in 1983 through funding from the Australian International Development Programme (IDP) and Canadian International Development Agency (CIDA). The project was carried out in association with Murdoch University and Deakin University in Australia; and the Open Learning Institute (OLI) in Vancouver, Canada. In 1986, OLI extended a further three-year technical training programme. The Centre has benefitted greatly from this programme, as most of its staff received their training for module writing at either one of the above named institutions.

Joint research activities have been undertaken together with the University of South Pacific, Open Learning Institute, Sukothai Thammathirat Open University, Ramkhamhaeng University, Allama Iqbal Open University and the Open University of Indonesia, conducted with the help of the International Development Research Centre (IDRC). Our links with the Open University, United Kingdom, as well as the International Extension College, Cambridge, have been continuously supported by the British Council.

We hope to extend this cooperative network further to include the East-West Communication Institute (Hawaii, USA), and the Athabasca University, Canada.

Growth and Expansion

In Malaysia, without immediate expansion of higher education institutions, opportunities for

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higher education naturally decrease as the population between ages nineteen and twenty-four increases from year to year. The need for skilled manpower for the economic development of the nation in the decades to come will be immense. Stiff competition for places at local universities and institutions has resulted in many young Malaysians seeking education overseas. In 1985 the number of Malaysian students overseas was estimated to be 60,000, out of which about 20,000 were pursuing courses for first degree level (Fifth Malaysian Plan, p.489). This figure is increasing at an average rate of nearly 10% per annum. In the future it might indeed be more difficult to support or sponsor overseas training for Malaysian students as certain countries have already increased tuition fees and put tighter restriction on overseas students, especially those who wish to pursue higher education in the professional and technical fields. Under these circumstances, greater demand will be placed on available domestic educational and training facilities in both public and private sectors.

In the Second Outline Perspective Plan (OPP2), 1991-2000, it was mentioned that the Government will increase its investment in education and training at the higher level. A total of 8.5 billion was allocated under the Sixth Malaysia Plan for development in training and education. But it was also foreseen that the establishment of new educational and training facilities will incur high costs. These efforts have to be complemented with other measures to encourage fuller utilization of existing facilities, such as, the Off-Campus schemes Distance Learning and Open University programmes, and the expansion of specialised classes for continuing education. Studies will be carried out within the Sixth Malaysian Plan (1991-1995) on the establishment of an Open University in Malaysia. Such measures will serve as a means to increase accessibility to tertiary education and also to help overcome the escalating cost of adding new facilities.

By 1995 enrollment at the university level is expected to reach 89,680 and the intake for tertiary education is also expected to increase to 38,700. The largest intake will be in the Applied Arts, Sciences, Engineering and Medical areas.

Problems and Prospects

The distance education programme and facilities at USM have been quite effective in teaching arts and science students. Since 1972, the Centre has produced 2232 graduates, of whom more than 80% graduated with Second Class Honours. Six students achieved excellent results and were conferred First Class Honours Degrees. The quality of the Off-Campus graduates is evident from the recognition given by both the public and private sectors. For instance, teachers obtained automatic job promotion upon their graduation. It should be borne in mind that the Off-Campus output consists of individuals with experience because the candidates are working adults, and stable compared to the much younger inexperienced On-Campus students. It is appropriate to add here that, at the moment, many experienced workers in the public and private sectors, because they do not possess the right paper qualifications, can only serve in the semi-professional or clerical services.

In general, the programme has been conducted economically. The cost to produce one graduate by means of the external mode is around 67% of that incurred for one On-Campus graduate through full-time study. The average completion rate, at 609, is acceptable and is considered among the highest in the world. If comparison is made between the science and the arts programmes, the arts programme appears to be more cost effective.

This is indeed understandable as there have been fewer students in the science programme, and the extra cost is also due to the practical components in the natural science courses. Although the student enrollment is small, the opportunities and programmes offered are comparable to other larger distance education institutions. Since there is a certain governmental restriction on student intake, the programme cannot really operate on the basis of and profit from, the economies of scale.

The Centre has resolved most of its major problems after two extensive reviews. However it has not completely eliminated all of them, due to various reasons. Some of these issues are within the University's control but others are not.

The imposition of strict academic regulations for working adult students creates certain hardships for these students, as well as certain problems for the administrators. This is in part due, perhaps, to the practice of the University to correlate the quality of student with the rate of learning rather than with achievement of grades alone. This then requires students to register for a maximum workload and strive to complete their study within the minimum time limit (so that they do not exceed the maximum time limit). Mandatory attendance at the orientation week, teletutorials, the three-week residential school requirement, and the compulsory one year full-time study on campus certainly make learning difficult for these adults. Whether all these regulations have contributed in a positive way to the working adult students requires study.

For some courses issues pertaining to quality control, control of staff, copyright ownership and revision of outdated study materials have not been fully resolved. The issue of copyright ownership is somewhat sensitive. For example, when a new academic staff has to take over an existing course written by another writer, the new academic staff has no authority to update the materials used in this course without the consent of the writer. If the writer concerned refuses to update his or her module, this will seriously effect the quality of teaching. Consequently, more time and resources are needed to write a totally up-to-date module by new staff.

The Off-Campus programme operates within a rather tight budget. As such the Centre can only supply a limited amount of equipment needed in video production. At present the Centre is using a machine at the Centre for Educational Technology and Media for film editing. The production schedule is, however, somewhat hampered since the machine is also used by other Schools/Centres. The appointment of staff on a temporary basis and their relative inexperience also contribute to the inefficiencies of the production section. Allocation of a sufficient budget and improving the administration of this section would certainly help.

At the moment, there is room for improvement in the way in which the Regional Study Centres are managed. Normally, part-time service Resident Tutors are hard pressed for time and this can prevent them from being fully committed to the Off-Campus work. In addition to this problem, they also do not have the power to implement University regulations. As a result, at some regional centres, it is possible that the facilities for library, laboratory, and teleconferencing are not properly looked after or maintained. Furthermore, teaching-learning activities at the regional centres are hard to monitor effectively because the centres lack administrative support.

The present list of courses offered through the off-campus teaching programme are those that are identified by the University as appropriate for its Off-Campus students. On-going observation indicates that these courses do not necessarily meet the needs of

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working adults, who would like to see courses relating to their vocational experience being offered. This becomes critical when considering widening the catchment area for students in the future. As the nation moves faster towards an industrial based economy, the Off-Campus centre must keep up with the challenges created by the heavy demands for professional and technical courses.

At present, USM cannot provide teleconferencing facilities at the regional centres of Sabah and Sarawak, partly due to lack of facilities, and partly because of the small number of students. This drawback, however, is compensated by having face to face tutorials at those centres. The teletutorial sessions are also tape-recorded and the tapes are sent to the students in Sabah and Sarawak. Planning has already been undertaken to set up the facilities for teletutorials at those two centres.

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Appendix

Research Projects (Completed and On-going)

Title: A Study of Learning Styles, Student Characteristics and Faculty Perceptions of the Distance Education Program at Universiti Sains Malaysia.

Author: Sharifah Alawiah Alsagoff

Doctoral Dissertation, University of Washington.

Title: Role Conflict, Role Ambiguity and Job Satisfaction Among Faculty Members in a Distance Education System: A Case Study at the University of Science of Malaysia.

Author: Zainal Abdul Latiff Doctoral Dissertation, Indiana University, 1988.

Title: Some Aspects of the Off-Campus Academic Programme at Universiti Sains Malaysia, Penang, Malaysia.

Author: B.H. Choo

Master's Thesis, University of Wales, Britain, 1980.

Title: Off-Campus Adult Student Characteristics (Malaysia) and Their Relationship to Academic Achievement.

Authors: G. Dhanarajan, A. Lourdasamy, Peter Choo Piang Fong, Zainal bin Datuk Ghani, and Lee Ean Kee.

Study conducted by Universiti Sains Malaysia under research grant from the International Research Centre, Social Science Division, 1986-1989.

Title: Study of the Problems Faced by Students in the Centre for Off-Campus Studies, Universiti Sains Malaysia.

Authors: Mustaffa bin Mohd. Isa, Wan Rozali bin Wan Ibrahim, Mohd. Zaini bin Omar, and Faisal bin Abdul Karim.

Conducted under USM short term grant, 1989.

Title: The Effect of Traditional Mathematical Operation (Repetition Drills) on Student Performance in Selected Mathematics Courses.

Authors: Abdul Rahman bin Othman, Ab. Rasid bin Mat Zin, and Omar bin Majid.

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Title: Teaching-Learning Organic Chemistry Through Distance Education: Student Learning Approaches and their Perception.

Authors: Mohd. Ridzuan bin Nordin, and Ab. Rasid bin Mat Zin, 1990.

Title: An Evaluation Report on a Distance Education Course: Organic Chemistry IV.

Author Ab. Rasid bin Mat Zin.

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Title: Intensive Course/Residential School: Study of Eearly Dropout. Authors: Mustafa Fadzil Farid Wajidi, Ab. Rasid bin Mat Zin, and Zainal Abdul Latiff. Conducted under USM short term grant, ongoing.

Title: Dropout Study. Authors: Mohd. Khalid Taib, Zainal Abdul Latiff, and Mohd. Ridzuan Nordin. Ongoing.

Title: Study on the Effectiveness of Teleconferencing. Authors: Nik Norulaini Nik Abdul Rahman, Fauziah bt Haji Aziz, and Khairian Salwa bt Haji Moktar. Ongoing.

Title: Comparison of Two Teletutorial Techniques Conducted at Various Regional Centres of the Off-Campus Programme. Authors: Mohd. Ridzuan Nordin (Coordinator)

Video Production and Research. Titles: Numerous. Authors: Ahmad bin Hj. Mohamad (Coordinator). Research and Development Grant, ongoing.

THE REPUBLIC OF MALDIVES

Chaiyong Brahmawong

THE NATIONAL CONTEXT FOR DISTANCE EDUCATION

During the past two decades, with the assistance of various international agencies such as UNICEF and UNDP/UNESCO, the Republic of Maldives has been modernising its education by developing a unified educational system to achieve universal primary education by 1995. Distance education has been considered an alternative approach for the country to reach its goal effectively within the limited time.

Presently, the distance education programmes being implemented on an experimental basis in the Republic of Maldives are a Distance Teaching English Course (DTEC), and a project on Distance Education for Non-Formal Education.

The Republic of Maldives is a group of coral islands in the Indian Ocean, located 670 km southwest of Sri Lanka. It consists of some twenty-six natural atolls grouped into nineteen administrative areas called "Atolls". Out of 1,190 islands, 202 are inhabited. Male is the capital, the center of political, social, and commercial life.

The Republic of Maldives has made remarkable progress in social development. When the three-year National Development Plan 1985-87 was formulated, the Government outlined, as part of its principle objectives: the need for improving the living standard of its people; balancing population density; economic and social growth between Male and the atolls; and attaining greater self-reliance for future growth by undertaking a number of development programmes. A very high priority is given to social services such as education, health, and social welfare.

The Republic of Maldives has a free market economy. Its main economic sectors are tourism, fisheries, agriculture, and small industries. Despite its insufficient inter-island transportation and telecommunications systems, the country is progressing well under its national development plans.

In 1986, the Gross Domestic Product was Rf.623.3 million (approximately US\$ 69.2 million) and grew at 7.06% per annum during 1985-86. The income per capita was Rf.3,278.

The Maldivians constitute a small and closely knit society, unified by bonds of common history, the Islamic faith, and the Dhevehi language. According to the 1987 Statistical Year Book of the Maldives, the population was 195,100; 101,134 males and 93,966 females. The annual growth rate was 3.5% with the average density of more than 650 per sq.km. Among the 202 inhabited islands, twenty-five have a population of over 1,000; out of which Male has a total of approximately 49,698. About 45 % of the population is younger than fifteen years old with the life span of fifty-two years. Over 80% of the working age (15-59 years) are in the labour force.

According to the results of a literacy survey reported in the same Year Book, the literacy rate in 1986 was 93.25 for ages 10-45 years or 91.30% for ages 10-80 years. The number of students enrolled in the educational institutions of Male and the Atolls during 1985-86 was 45,726; 23,191 males and 22,541 females. Among these students, 31,652

(69.22%) are in the Atolls and 14,074 (30.78%) are in Male. In the Atolls, approximately 6,474 students (14.16%), equal male and female, are enrolled in Atoll Education Centers.

Presently there are two languages used for instruction, English and Dhevehi. The English language is used as the language of instruction in most schools in Male. Modern development in the Maldives has been dependent on English as the language of instruction. It is a means to mobilize social action upward and a prerequisite for finding good jobs in Male. It is the language that the students use for the British "O" and "A" level examinations. There are however two weak points in using English as the language of instruction. It means teachers for teaching major subjects in Male need to be recruited from outside the Maldives, and the country has to depend totally on foreign curricula and text books. Dhevehi, the national language of the Maldives spoken by all the people, is used as the language of instruction in the traditional schools of the Atolls. Dhevehi has its own right-to-left writing system. There is already some written literature in verse and prose. It is the language by which adults in the Atolls and Male become literate and has the potential to assist the Maldives to develop.

Before the introduction of formal education, the Republic of Maldives was characterized by informal, direct, face-to-face learning. Formal education was started about half a century ago. Presently, the Republic of Maldives has its own dual educational system for which distance education is envisioned as a way of quick and effective human resource development.

Traditionally, education in the Maldives started with the informal face-to-face teaching by learned people who, after receiving some formal schooling abroad returned home, and began instruction for others. This was mostly based on religious teaching and was the traditional system of education.

The traditional system has played important roles in preserving the religion and the cultural identity of the Maldivians; creating an awareness, instilling a love for the nation, and providing the people with basic numeracy and literacy skills. The traditional system evolved over the centuries. It was composed of three types of institutions: Kiyavaage, Makthab, and Madhrasaa.

The Kiyavaage were informal pre-primary neighbourhood schools at the island level. Children gathered in a private home where they learned to recite the Holy Koran. The main difference between Makthab and Madhrasaa was their size and curriculum content. The Makthab provided teaching of the Koran combined with reading and writing and simple arithmetic, while the Madhrasaa had a wider curriculum, usually enrolled more pupils and employed more teachers. Both schools were formal and enrolled pupils over three years of age. The range and levels of subjects in Kiyavaage, Makthab, and Madhrasaa were not uniform throughout the country.

In Male, formal schools were established in each ward and were run by the ward committee. A more advanced school called Saniyya was in operation. The Saniyya was later developed into two separated wings, the Majeediyya for boys and the Aminiyya for girls. Two boarding schools were also established, Darul Iqama by the government, and Ruwaaq-ul-Thalaba by the Northern Atolls.

English language education was introduced in the 1960's. As a result, a modern education system co-exists with the traditional system. The primary aim of the new educational system in Male was to produce secondary school graduates with London G.C.E (O Level) qualifications. Thus, the Maldives has a dual system of education: the traditional

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system in the Atolls, and a modern formal English language education system.

In 1979, Atoll schools were established in each of the nineteen Atolls. In 1981, in order to benefit the entire Atoll community, six of the nineteen Atoll Education Centers (AEC) were established to provide basic primary education for the young and normal education for adults. Each AEC was to serve as the community education center with its service branching out to assist the community needs of every island in the atoll.

At present, there is no single unified educational system for the whole country. The newly conceived educational system is 5:2:3:2.

According to the Educational System in the Maldives, enacted in 1980/81, there are two years of kindergaten, LKG and LUG providing pre-school education for pupils age 4-6 to have pre-primary education. However, there is a limited number of pre-primary schools, exclusively found in Male.

In the other islands, pre-primary education provided by neighbourhood Kiyavaage schools is less formal. Children ages 3-7 attend these neighbouring homes to receive instruction from an elderly man or woman. The children learn Thaana (the local language script) and Arabic scripts as well as numerals. Some older pupils learn to perform the prayers. The Kiyavaage make use of low cost educational materials such as "wooden satiates" and the "Voshi Fila". This type of pre-primary neighbouring schools is popularly accepted. Even in Male, children attending a formal pre-primary school still attend one of the local Kiyavaages.

Primary education, consisting of five years, is followed by two years Upper Primary Education called the Middle School. The end of the middle school is the first time when students sit for a common public examination called the Junior School Certificate (JSC) examination.

A Five-Year Unified Primary curriculum was introduced in January 1981. All primary schools, except the English language schools in Male, have been instructed to teach the unified curriculum, which consists of nine subjects.

There are two levels of secondary education. Three years Lower Secondary Education lead to GCE "O" Level, and two years Upper Secondary School prepare students for GCE "A" Level.

In addition to the general education stream, vocational technical schools of 1-2 years are provided.

There has not yet been any institution of higher learning in the Republic of Maldives. Undergraduate and postgraduate studies have to be undertaken outside the country. A limited number of scholarships for higher education is provided through a State Scholarship Scheme.

In addition to the aforementioned schools, there are a number of other institutions conducted by the Ministry of Education and other ministries which provide education and training programmes. The Institute for Islamic Studies in Male provides instruction in the Arabic language and Islamic studies to students of various ages. The Teacher Education Institute under the Ministry of Education trains teachers for schools both in Male and in the Atolls. The Vocational Training Center trains electricians, welders, and other types of technicians.

The Ministry of Home Affairs and Maldives Shipping Limited established a Rehabilitation Center on the Maafushi island in the Male Atoll.

The Government of the Republic of Maldives, in 1985, approved and published the Educational and Human Resource Development Plan, 1985-1995 to give educational

development direction to meet the urgent need of manpower for national development. According to this plan, the policy of the Government was to have one unified system of education in the country whereby all schools would gradually implement the nationally designed curriculum and be provided with trained teachers.

All schools would use appropriate pedagogical methods, a media and evaluation system using both formal and non-formal approaches to achieve universal primary education, secondary education and post secondary education, as well as a wide range and level of training to develop human resources to meet the needs of the country. As a major educational policy, the Government was committed to expand educational opportunities aimed at achieving universal primary education by the year 1995.

The communication infrastructure in the Republic of Maldives is under development. Although the country has a good telecommunication linkage with other countries, domestic communication is still limited. Communication infrastructure that may support distance education to a certain extent includes radio coverage nationwide in AM and one FM station operated by the Vocational Training Centre with limited coverage in Male, a TV station in PAL-B system in Male, and a telephone link via micro-wave from Male to the various atolls.

Presently, there is no official transport system from Male to other atolls. Transportation is operated by the private sector. Official postal services to the people in the Atolls are not available. Letters and parcels are delivered by boat operators as requested by the senders who have to pay for the services.

There are only a few public and private printing shops in Male. The public Government Printing Office is located in the central part of the capital, close to the Presidential Palace. The Government Printing Office provides printing services to all government agencies. All school texts and governmental papers are printed there.

Radio broadcasting services are provided by the Voice of Maldives (VoM). This was established in 1976 to provide programmes in information and general knowledge, education (both formal and informal), language and culture, religion, entertainment, public relations, and advertising. The station, which broadcasts on AM with a 5 Kw transmitter, is located in Male with coverage of all atolls in the Maldives.

All programmes produced by VoM and other agencies such as the Education Development Center are broadcast approximately eleven hours per day from 5:30 -9:00; 13:00-15:00; and from 17:00-22:45. These programmes cover Educational, Language, Culture and Religious (25%); Information and General Knowledge (43%); and Entertainment, Announcement and Advertising (32%). The most popular programme is Radio Haveeru (Radio Evening), a magazine-format informal education programme started in late 1970's.

Between 1978-1987, there were 21,898 radio sets in the Maldives. The annual registration of new sets increased from 609 in 1978 to 1,347 in 1987 with a peak of 3170 sets in 1983; averaging 1599.6 sets per year. The ratio of radio sets per population is 1:9.

The most useful means of communication from Male to the Atolls is radio communication. From the distance atolls, the signals are often unclear and communication by radio-telephone is very difficult. Calls on this network also have to be booked according to a schedule (each Atoll having fixed time-slots) and availability is limited. Radio-Fax messages faxed via radio signals instead of telephone lines, are quite reliable and are a simple way to send official messages between Government Offices and Atoll Offices.

Between the Atoll capitals and the islands high power walkie-talkies are used. This is also used for intra-Atoll communication and for relaying radio-fax messages from the Capital

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The only television broadcast in the Maldives is Television Maldives (TVM), started in 1978. It broadcasts on a VHF Channel 7 on PAL-B colour system using a 1KW transmitter covering the Capital, Male Atoll, and the parts of neighbouring atolls within the radius of 45 miles. It reaches approximately 6,000 television sets.

TVM Channel 7 broadcasts information, educational, entertainment, and some advertisements. It broadcasts daily from 17:30-19:00 for children and from 20:00-23:00 for adults.

TVM is considering ways and means to expand the coverage area to include other atolls either by setting up repeaters in various islands, setting up ground microwave links, or using satellite links to provide the opportunities for people in other parts of the country to watch television programmes. If this occurs, it may be possible to make use of television for providing education to the people.

Telephone services are available in the capital of Male. Telephone services to other islands and atolls are available via undersea cables.

HISTORY AND BACKGROUND

Distance education in the Republic of Maldives is in its infancy. It is provided by the Non-Formal Education Unit, in the Ministry of Education. One distance education programme in teaching English is being implemented as a pilot project. The project on Distance Education for Non-Formal Education Unit is being planned for nation-wide implementation .

The plan to use distance education as a means to upgrade manpower in the Republic of Maldives began in the early 1970's under the assistance of the international organisations UNDP/UNESCO, UNICEF, and UNFPA.

UNDP/UNESCO and UNICEF projects began in 1971 to assist in preparing a long term plan for developing education in the country. Since 1976, a number of projects have been implemented in various areas of educational development. Namely, keeping a register of all schools and institutes of learning in the Republic; establishing the Educational Project Office; building seventeen Atoll Education Centers; upgrading more than twelve island schools; establishing a Science Education Center; forming an Educational Development Center to develop education in the Atolls and the capital city of Male; founding the Institute for Teacher Education; developing a unified national curriculum; and developing the various aspects of educational technology such as printing, educational radio broadcasts, community education, and self-learning module. Among these activities, a distance learning project was proposed in June 1982 to support curriculum development activities and teacher support services.

In a report on Development of Education and Training: The Republic of Maldives, prepared by UNESCO Secretariat in 1982, the Mission team, after their visit to the Republic of Maldives in September 1981, provided information and views on the development of education in the country. A distance teacher training programme was recommended as a way to provide in-service teacher training for teachers in the various atolls. It could use a multi-media approach in which face-to-face learning techniques could be coupled with educational radio broadcasts, assignments, and tutorials at the Atoll Development Center.

In July-August 1986, another UNESCO team went to the Republic of Maldives to

pursue further educational development. It discussed and identified possible projects for the development of education in the Republic of Maldives. After discussion with various agencies, the mission team proposed three projects on In-Service Teacher Training, Non-Formal Education, and Distance Education. These were the three priorities approved by the Government of the Republic of Maldives.

In addition to providing assistance to other educational sectors, since 1984 UNICEF has provided assistance to Non-Formal Educational Unit (NFEU) in an experimental Condensed Education Programme (CEP). This aims to provide an accelerated elementary education to its out-of-school population and to those children who were deemed to be over-age for primary grades, but had not completed primary education. CEP was continued in the 1987-1991 programme because it was found useful as a strategy for universalising primary education in a context where access to formal education was still limited. NFEU was to complete the preparation of curriculum development for Levels One-Three including inputs for Health, Nutrition, and Training Productive Skills; to introduce the CEP in most of the Atoll Education Centers for out-of-school and the over-age group; to provide educational grants to selected students from various islands to be attached to each AEC; and to develop CEP courses as self-learning modules for distance education programmes aiming at over-age children and unemployed youth in islands using regular teachers as tutors. As an alternative to formal education, the Distance Education English Course (DEE:C) has been implemented at three selected Atolls since June 1989.

In June 1989, a UNDP/UNESCO consultant was assigned to formulate a project document on Distance Education for Non-Formal Education in the Republic of Maldives for consideration by the Government and UNDP for financing during the 1988/89 development plan period. In addition, the consultant was requested to formulate a project document on Distance Education Infrastructures for UNFPA consideration, and a Five-Year Plan for the development of Non-Formal Education in the Maldives. It was proposed that the Republic of Maldives should take the lead by being the first country to use distance education as the major approach to providing universal primary education to its peoples.

As mentioned earlier, the Republic of Maldives has until recently had two systems of education for the Maldivians. One is the traditional Dhevehi language system and one is the English language system. Both systems together provide education for more than 62 % of the whole population. At all educational levels, there is a great number of people who have started some level of education but did not complete it. From the Population and Housing Census of Maldives 1985 there were 121,847 people attending all educational levels; but 29,709 (24.38%) did not attain any standard. Although the literacy rate was reportedly a high 93.25%, it was limited in nature. Among the 54,879 people entering primary education, 50,688 (92.36%) did not complete it. A great number of people still need ongoing primary education in order for the country to have an adequate amount of human resources for national development. At the middle school level, out of 3,955 students entering middle schools, only 1,686 (42.63%) completed. At the secondary school level, 1,943 attended but only 572 (29.43%) completed. In 1985, about 856 people attended pre-university and university level.

In addition to the above number of people who had not completed any level of education, those who had passed some educational standard were still in need of furthering higher levels of education. Thus there is a need for continuing education to upgrade the quality of their life and work.

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Many out-of-school youth and adults are in need of non-formal education in the four areas of basic education to provide literacy programmes; of universal primary education, as well as Levels One-Three; for upper grades both at secondary and post secondary, and as a basis for income generating work. All of these areas have been partially provided by Non-Formal Education Unit.

A basic literacy education programme is needed for some target groups, especially the over-school age, the aged, and those who live in isolated areas. Among the literacy groups, there is still a need to provide them with functional literacy in order to upgrade their incomes and the quality of their life. The NFEU needs to provide appropriate programmes for this great number of the target group in a very short period of time.

Universal primary education (UPE) is one of the most urgent priorities. The government aims to provide UPE to all by the year 1995. The NFEU presently provides UPE at three levels. Level One covers Grades 1-3; Level Two, Grades 4-5; and Level Three NFE programmes are aimed at out-of-school children and youth. Due to limited teachers, the programmes can only be provided to forty students annually in each Atoll totalling 1,600 nationwide. This scheme will take about thirty years to provide education to them by traditional face-to-face instruction.

There are a great number of people who need secondary and post secondary levels of education. Since only a limited number of students can attend existing schools, the majority of children have no opportunities to continue secondary and post-secondary education although they are willing and ready both financially and intellectually. The Institute for Teacher Education, the Allied Health Services Training Center, and the Vocational Training Center require trainees with post primary academic background. The preference is clearly for secondary school graduates but with the limited number of students of this background available these institutions are only able to recruit trainees of Junior Secondary Certificate (JSC) level. In most instances, even this is difficult. More secondary school graduates are needed in these institutions.

Income generating is also a priority to upgrade the quality of life. The NFEU had to provide income generating courses for the students to help increase their incomes. But it again faces the problem of personnel shortage if the courses are delivered via non-distance means.

The above mentioned areas may be provided via non-distance means of non-formal education. But due to the urgent need to provide education for a great number of learners and within a limit time, distance education is justified for many target groups.

Dropouts are students who attend an educational institution but, for whatever the reason, leave school without completing. Presently, there are two types of dropouts accounting for nearly 92.36 %. The first type consists of those who left public schools. These people either continued in private schools or gained employment. The second is those who left private schools because of limited places to keep them. These private schools need to make room for the newly enrolled. With the implementation of distance education, these two groups of dropouts might be able to finish their education if adequately motivated and appropriate approaches are employed to provide them with the opportunity to study by themselves at home via appropriate multi-media packages.

Currently, due to many environmental factors, the over-aged youth (19-35 years old) who left schools without completing but still need primary education remain in great number scattered all over the country. They account for 11,076 (20.18 %) of the total population

who need primary education in the Maldives. It is not possible to provide education to this group of people via traditional face-to-face approach. A distance education approach is the best way to provide education to them in the shortest period of time.

There are about 9,583 (17.46%) of the adult and senior citizens (aged 36 years and over) who need basic education in order to upgrade their work and life. These people are already in the labor force and cannot leave their jobs and families to attend traditional schooling. In most islands, there is neither facility nor infrastructure to provide education to these people. Distance education may be a solution.

Most of the JSC holders cannot further their studies in existing upper secondary schools and institutes. Some of these are admitted to the Institute for Teacher Education, the Allied Health Services Training Centers, and Vocational Training Center, but they still need to upgrade their competencies. Distance education will help those who wish to upgrade their academic background at secondary level.

There are more than 1,000 "()" and "A" level graduates from public and private English language schools who cannot continue their studies in colleges and universities overseas. There is no higher educational colleges or universities in the Maldives. These young boys and girls count on scholarships from either the government or international funds to further their college and university degrees abroad. Scholarships and grants are limited, therefore while waiting for their turn many become employed or get married. Even when grants are available, many, especially women, decline to leave their families. Consequently, many secondary school graduates remain who need post secondary education to upgrade the quality of their life and work without having to leave their work or their families to study abroad. Distance education has been found to be very successful with this group of people in other countries, and it should be successful in the Maldives, especially because of the absence of any formal higher education institution.

There are many special interest groups in the Maldives such as groups of youth, women, men, religious groups, professional and career groups (teachers, health workers, social workers, business people), and government officers that need different types of education to meet their demands and interests. Distance education is able to deliver the kind of knowledge and experience they need.

There are some newly implemented programmes that might benefit from distance education such as the Population Education Programme and the Early Childhood Development Programme. The Population Education Programme is aimed at certain interest groups on family management and family planning. The targets are men, women, and youths. The purpose of the Early Childhood Development Programme is promoting the awareness of parents in child raising and providing the right understanding of the roles of sisters and brothers in caring for their younger siblings. Early Childhood Development Centers must be established to provide the necessary infrastructure for this programme. Distance education will inevitably be helpful for the education and training of these three new programmes.

Distance education was established as a pilot project in the Distance Education English Course (DEEC) in 1989. DEEC is being implemented at three selected Atolls under the NFEU with partial funding from UNICEF. Distance Education English Course at certificate level is offered to teachers, Atoll officers, and JSC holders. The distance education project was implemented by the Non-Formal Education Unit in Haa-Dhaal Atoll in the north, Lhaviyani Atoll in the central part, and Laamu Atoll in the south. The DEEC

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employs a multi-media approach to distance education instructional media based on printed media, audio materials, face-to-face workshops, and peer group tutorials.

Originally, radio had been planned to be the major component of the DEEC delivery system. Radio programmes in English were to be produced and broadcast via VoM, and supplementary audiotapes produced and recorded at EDC. However, due to course production problems, the DEEC media package was re-designed, substituting audiotapes for radio broadcasting as the main audio component. Audiotapes consisting of twelve C-90 cassettes are employed for complementing the printed materials which consist of course books of ten units; each unit contains seven lessons. Consequently, radio broadcasts take a supplementary role.

The DEEC media component was designed and developed by a VSO volunteer who was assigned as a Distance Educator Coordinator to the Non-Formal Education Unit. The distance education system, designed for the English course as a pilot project, was based on print and audio-tapes supplemented by radio broadcasts, face-to-face workshops, and, to a limited extent, peer group tutorials. Radio communication and walkie-talkie tutorials are also planned by certain groups in some Atolls.

Course design and production were originally planned to be carried out by a team of course writers from ITE, and school based English teachers, mostly with radio script writing experience. Course production originally proceeded along the following steps: Design course outline; Design structure of course materials (course books, tapes, assignments); Appoint course writers (as a course team) and provide briefing and direction on the expected products i.e self-study materials and other multi-media components; Provide training on Radio Script Writing and Production to the course writers; Allocate workloads to writers; and Produce and review draft materials in regular weekly meetings. Then the course books were handwritten, illustrated, and proof-read by contracted part-timers, so they could be printed at a private printer. The handbooks were printed at the Government Printing Office. The audiotapes were scripted, checked, and recorded. After being admitted through a system of application and selection, students are requested to attend a series of three workshops. The first workshop is for orientation, distribution of course materials, and for the students to complete the pre-test. Subsequently, they study from the course book and audio-cassettes, and complete the given assignments for Units One-Five, then they attend the second workshop a few months later.

The second workshop is for the students to review Units One-Five; take tests on that material; and get course materials on Units Six-Ten, while the coordinator evaluates the course. The headmaster of AEC also gives his evaluation. After this workshop, the students study the second course book and accompanying materials, then attend the third workshop. During the third workshop, the students take the test for Units Six-Ten, and the post-test, while the coordinator conducts the overall evaluation of the course. After all requirements are completed, each student is given a certificate.

The Distance Educational English Course (DEEC) is financed by UNICEF under the Condensed Education Project through the Non-Formal Education Unit.

Since 1984 UNICEF has provided assistance to NFEU in an experimental Condensed Education Programme aiming to provide an accelerated elementary education to the out-of-school population, and to those children who were deemed to be over-age for primary grades, but had not completed primary education. Distance education was found useful as a strategy in universalising primary education in a context where access to formal education

was still limited, thus CEP was continued in the 1987-1991 programme.

Within the programme of cooperation between the Government of the Republic of Maldives and UNICEF, 1987-1991, NFEU was to complete the preparation of curriculum development for Levels 1-3 including inputs for Health, Nutrition, and Training Productive Skills; introduce the CEP in most of the Atoll Education Centers for out-of-school and the over-age group; provide educational grants to selected students from various islands to be attached to each AEC; and develop CEP courses as self-learning modules for distance education programmes aiming at the over-age children and unemployed youth in islands using regular teachers as tutors. The DEEC is a part of this programme. The sources and forms of financial supports have not yet been changed.

The trends of development of distance education in the Republic of Maldives are increasing, especially with the assistance given by UNICEF, UNDP, UNESCO and UNFPA.

THE LEGALSTATUS OF DISTANCE EDUCATION

The legal status of the Distance Education English Course is covered by the agreement between the Government of the Republic of Maldives and UNICEF which has been providing financial supports to the Condensed Education Programme since 1984. In the future, when new distance education programmes are established, they will be fully supported by the Government through some form of law and regulation.

OVERVIEW OF CURRENT SITUATION

Aims and Objectives of Distance Education

The aims of distance education in the Republic of Maldives are two-fold. First, it provides education through non-formal education by using existing infrastructure such as Atoll Education Centers, Atoll Educational Resources, and the various mass communication agencies such as radio and television for the various target groups who have not completed any standard of education. Second, it provides education and training to special interest groups in order to upgrade their knowledge and skills which will ultimately improve the quality of their life and their work.

The objectives of distance education in the Maldives are specifically to consolidate the Atoll-Based Education Programme existing in various atolls as a part of the Atoll-Based Educational Concept. Distance education should be available to provide more coverage to the rest of the islands. With the use of distance education, more islanders will benefit from basic and primary education, upper education, and training programmes via non-formal education approach. Distance education provides training and education for the over-aged group (i.e beyond school ages) to gain the necessary training for certificates. Since there are many over-aged people who have not completed any educational level, it is not possible to educate this group via a traditional face-to-face approach. A distance education approach is the best alternative to provide fast education for them by providing in-service teacher training to increase the number of qualified teachers for schools in various levels in the Capital, the Atolls, and the Islands using the existing infrastructure and resources. It provides education

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for the dropouts from both public and private schools by providing them with the opportunities to study by themselves at home via appropriate multi-media distance education packages. Distance education can also provide education for senior aged groups (over 45 years) who need basic education in order to upgrade their work and life. These people are already in the labor force and cannot leave their job and Emily to attend traditional schooling.

Control, Organizational and Management Structure

Distance education is to be implemented by the Non-Formal Education Unit, Ministry of Education in close collaboration with other governmental subsectors namely, Educational Development Center, Voices of Maldives, Television Maldives, Institute for Teacher Education, Vocational Training Center, Government Printing Office, Youth Center, Department of Women's Affairs, Ministry of Health, Ministry of Atoll Administration and other interested agencies. Any distance education programmes such as DEEC are controlled by NFEU under designated heads or coordinators of the programme. The organizational and management structure of the distance education section/programme may be viewed as an integral part of the NFEU.

The Non-Formal Education Unit (NFEU) was established as a part of the Educational Development Center in 1979 responsible for community education. It was separated as an independent entity in 1986 and directly reports to the Minister of Education. NFEU is headed by a Deputy Director and an assistant director.

The NFEU is divided into the Administrative Section; Basic Education Section; Distance Education Section; Training Section; Material Developments Section; English Courses; Population Education; and Early Childhood Education Section.

The NFEU is responsible for providing community education programmes by means of various education and training courses to people of all ages in order to obtain a satisfactory livelihood. The courses are conducted both in Male and in the Atolls at the Atoll Educational Centers and the Atoll schools. Major programmes are Basic Education for out-of-school children between the ages of eleven to fifteen who have attained primary level, youth between the ages of sixteen and twenty-five who have not attained Grade Three level, and illiterates between ages twenty-six to forty-five; English Programmes for government officials, assistant headmasters, teachers at educational institutions in the Atolls; Commerce Programme for young people to prepare them for the London Chamber of Commerce and Industry; Thaana Typing for typists to be able to use the recently-introduced Thaana (Divehi Language) Script typewriter; Arabic Thaana Calligraphy to provide training for clear and legible handwriting in the various sectors of the government and the community in general; and Typing and Shorthand Programme to cater to the needs of various government agencies and the community. NFEU also conducts various adhoc training courses in collaboration with other sectors of the government. Close ties have been established with the Ministry of Health and the Ministry of Agriculture. Some of these courses are island and atoll based while other programmes are carried out by mobile teams operating from Male.

Financing of Distance Education

Distance education programmes are presently financed jointly UNICEF, UNDP/UNESCO and the Government. Financial support from international agencies is needed for international personnel, training, and miscellaneous use. While the professional experience in distance education and related activities of national staff members may exist to a certain degree, a limited number of international experts, residential and short term consultants are needed to provide expertise and over-all supervision to national counterparts. In order to implement the distance education project effectively, the personnel must have adequate administrative and technical skills. A series of training workshops in the administration of distance education, the curriculum and programme development, the course design, media production, and the delivery and evaluation systems need to be provided both inside and outside the Maldives. In operating a distance education system, there are additional activities involved such as honorarium for course writers dissemination of distance educational materials, sundries, and reporting costs.

The government's financial support is in the form of inputs in kind to provide professional staff, premises, operating production facilities, and air time. Personnel who are in charge of distance education projects are officials at the NFEU, such as the Deputy Director, staff of the Distance Education Section, and staff members of other divisions in the NFEU.

The Government provides the premises at the Educational Development Building, Atoll Educational Centers, and existing government buildings to be established as offices for the Distance Education Center, and all Community Resources Centers. In implementing distance education projects, official personnel have to travel from Male to the Atolls and from the Atolls to Male or other places for training, supervision, monitoring and evaluation. Daily subsistence allowances or per diem and travelling expenses incurred are provided by the Government according to government regulations. During the period of project implementation, the distance education projects need to use production facilities and human resources of the various departments and units such as the Department of Educational Development to produce audio-visual components of distance education programmes as well as printing facilities. Radio components of distance education packages are mostly produced and broadcast by the Voice of Maldives. The Government needs to provide production facilities and air time for this purpose. Similarly, the television programmes which may be included as components of some distance education programmes for higher education and special groups are to be produced and broadcast by Television Maldives. The Government must provide the technical inputs, production facilities and air time for television programmes.

Geographical Coverage of the Provision of Distance Education

Distance education is considered ideal for all of the Republic of Maldives which covers an area three times that of Sri Lanka including those who live in the various atolls, if the necessary basic infrastructures such as communication, transportation, and postal services exist.

Distance Education in Asia and the Pacific

Instructional and Delivery Systems

Instructional and delivery systems have been developed to a limited extent. For example, the DEEC has developed its own instructional system using printed materials supplemented by audio-media in the forms of audio-cassettes and radio programmes, face-to-face workshops, limited tutorials, counselling, and examinations. In the 1989 UNDP/UNESCO project documents, more details on Distance Education for Non-Formal Education and its instructional and delivery systems were proposed.

For the Maldivian setting where the communication infrastructure is increasingly improving, it may be more appropriate to design more complete multi-media systems for distance education. This uses the print-based approach augmented by various available media, especially audiotapes using audio-vision techniques, radio programmes using radio-vision techniques, tutorials both face-to-face and those based on telecommunications, such as walkie-talkie in the atolls where telephone is not available, and telephone tutorials where a telephone infrastructure exists.

A distance education system for the Republic of Maldives was proposed with the following steps: develop curriculum and programmes based on existing needs gained through the process of needs assessment; design the courseware for each course by undertaking the following stages; analyze the content and write concept mapping; write statements of concepts; state objectives; identify learning activities; identify distance learning media; determine mode of evaluation; and write unit and module lesson plans. The next step is to produce the media for distance learning packages consisting of: printed self-learning modules as core medium; audio-visual materials consisting of audio-tapes with illustrations, and explanation in printed form; radiovision materials consisting of radio programmes with illustration and explanation in printed forms; for some programmes offered to students in Male and selected atolls television and video programmes; tutorial packages for face-to-face instruction and discussion for students at regional and local study centers to be located at each Community Resource Center; and telecommunication tutorial packages such as walkie-talkie tutorials for students in some islands. Finally, the distance education system must be delivered in the following ways: conduct orientation sessions and distribute distance learning packages to students; allow times for students to study from printed self-learning modules or coursebooks, listen to audio tapes or radio programmes, view television and video programmes, and work on assignments in the workbooks; provide face-to-face or walkie-talkie tutorial sessions; and provide examinations in the middle or at the end of each course.

Enrollment in Distance Education

Enrollment in the existing Distance Education English Course is still limited. There are about 300 students in the DEEC programme. However, after the implementation of distance education programmes for non-formal education, enrollment of more than 60,000 students may be expected from out-of-school people (ages six-twelve) who have not completed literacy education and primary education; the primary school leavers (ages twelve to sixteen) who have no opportunities to continue in secondary schools; the over-age youth (ages fifteen to

thirty-five) who have not completed primary education; the working adults and senior citizens who wish to further their education in any educational level; the secondary school graduates who wish to continue their studies in post secondary and higher education; the special interest groups such as pre-school children, youth, women, men, teachers and professional or career groups such as farmers, fishermen, health workers, and business men to have special training that will serve their needs.

In addition to the above number of people who had not completed any level of education, those who have passed some educational standard are still in need of furthering higher levels of education and for continuing education to upgrade the quality of their life and work.

International Affiliation and Cooperation

The Republic of Maldives has received cooperation from UNICEF, UNDP, and UNESCO, WHO, ILC), VSO, and other international agencies for implementation of distance education programme in general.

Problems and Issues

Similar to other developing countries, there are certain problems and issues in implementing distance education in the Republic of Maldives. There is still a limited number of qualified personnel, and this must be increased. Presently the number in educational institutions is very limited. In schools, for example, nearly 40% of teachers are from outside the country. In other areas of community services relating to education, such as the Community Health Center, there is high turnover among the staff, thus it is quite impossible for each one to know the people to whom services are rendered.

Another problem concerning personnel is the low and inadequate incentives for educational personnel to become involved in new projects. Most teachers and governmental employees have to take second jobs in the afternoon. In implementing a new project such as distance education, then, the technical know-how may exist but the will and persistence to carry out the plan may not be available as most personnel have other engagements.

Communication and transportation infrastructure are still inadequate. Due to geographical conditions, traveling from Male to the Atolls and the Atolls to the Islands takes a lot of time. No public transportation is available and communication infrastructure is limited to communication by radio and walkie-talkie. Telephone is available only in Male and the nearby Atolls. Public postal services are not yet available.

Information is important for effective administration. However, accurate and consistent information is not always available. Although the data is available, it is not possible to interpret it without consultation with the officials in charge.

Educational technology and educational media play important roles in the educational delivery system. International agencies such as UNICEF have provided basic audio-visual equipment and other necessary facilities to various educational units, but the maintenance of equipment is inadequate because of the shortage of maintenance staff. Consequently, equipment provided to some governmental organizations does not functional properly after a period of time.

Distance Education in Asia and the Pacific

As in some other countries, the public's attitude towards teaching and learning via distance education is still not favourable. Most people have long held the belief that quality education can only come from formal schooling. In order for distance education to be effective and to change the public's attitude, effective and systematic approaches are needed for planning, preparation, and implementation of distance education programmes.

It is not difficult within the Maldives to generate or motivate the desire for learning through distance education. However, it will be difficult to sustain this motivation if external motivation and drive no longer exist. The possibility for a pilot phase being successful may be high, while an expansion phase may not. The enthusiasm, motivation, and the input given to the pilot project phase may be absent during the expansion phase.

As a result of shortage in communication infrastructure, points for delivery of distance education are still insufficient. Although there are Atoll Education Centers, and Atoll Resource Centers available in some of the atolls, they are limited to the islands on which the AECs and ARCs are located. Study centers in other islands need to be established.

Distance education in the Republic of Maldives is at the developing stage with a small-scale experimental programme on Distance Education English Course. On a larger scale, the Government, through assistance from international agencies, is planning to implement distance education nation-wide for a non-formal education aim of achieving universal primary education by 1995. After the distance education projects are implemented, the Republic of Maldives may employ distance education as the major means for providing formal primary, secondary, and higher education to its people. The Maldives Plan may become a model for other developing countries aiming at providing effective mass education for human resource development within a limited period of time.

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MYANMAR

Win Maung
and
Han Tin

THE NATIONAL CONTEXT FOR DISTANCE EDUCATION

The Gross National Product (1987/88), in current prices in Myanmar is 66,369 Kyat (in millions), or about US \$10,071. Total investment equals 8,569 Kyat, or 12.9%; imports equal 4,065 Kyat, or 6.1%; exports equal 1,655 Kyat, or 2.5%; and per capita output is 1,720 Kyat. The sectoral composition of GDP (1987/88) and labour force is: Agriculture 48.6% GDP, 65.1% labor force; industry 12.1% GDP, 11.0% labor force; and services/ trade 39.3 % GDP, 23.9 % labor force. Union Government Finance (1987/88) were: Receipts 6,674 Kyat, 9.9% GDP; current expenditure 5,927 Kyat, 8.9% GDP; capital expenditure 2,159 Kyat, 3.2% GDP; overall deficit -1,412 Kyat, -2.1% GDP; external assistance 1,285 Kyat, 1.9% GDP.

The Union of Myanmar lies in Southeast Asia between latitudes 09.32'N and 28. 31 'N and longitudes 92. 10'E and 101.11 'E. The Tropic of Cancer passes through the country close to the towns of Tiddim, Tagaung and Kutkai. Latitude 16.45'N and longitude 97.30'E run through Yangon, the capital city of the Union of Myanmar. The Myanmar Standard Time, taken as on longitude 97.30'E, is six hours and thirty minutes ahead of Greenwich Mean Time. Myanmar's neighbors are Peoples' Republic of China, Laos, Thailand, Bangladesh and India.

The length of the contiguous frontier is 6157 kilometers and the coastline from the mouth of Naaf River to Kawthaung is 2229 kilometers. With a total area of 676,577 square kilometers, it is twice the size of Vietnam and approximately the size of Great Britain and France combined. More than half of the land is mountain country, mostly covered with forests. The country is made up of seven states and seven divisions.

Myanmar has a tropical climate with three seasons. The rainy season is from mid-May to mid-October, the dry cool season is from mid-October to mid-February, and the hot season is from mid-February to mid-May. In the central plains (referred to as the Dry Zone), it is generally dry with an abundance of sunshine during the rainy season. Humidity is high from mid-April to December. Average temperatures in the coastal and delta regions, inclusive of Yangon, are 32.C in the hot season and 21.C in the dry, cool season.

The population of the Union of Myanmar in 1989-90 was estimated to be 40.03 million with an annual growth rate of 1.88%. The annual growth rate between 1973 and 1983 was 2.02%. The Union of Myanmar comprises many nationalities and ethnic groups. There are 135 recognized ethnic groups in the Union. The largest nationality is formed by the Bamas, who make up 68% of the population, living mainly in the lowlands. The other major nationalities which number seven are: Chins, Kachins, Kayahs, Kayins, Mons, Rakhines and Shans. About 85 % of the population - mainly Bamas, Kayins, Mons, Rakhines and Shans - are Buddhists, while the rest are Christians, Muslims, Hindus or Animists.

Education in Myanmar enjoys a favourable environment as the people have

traditionally given education the highest priority in their lives since the time of King Anawratha (1044- 1077) when Theravada Buddhism became the dominant religion of a unified country. Traditionally, young boys (of Buddhist faith) before the age of twenty entered a monastery as a novice for a period of time during which they were provided with basic functional literacy and numeracy and were introduced to religious teachings through Buddhist scriptures. Girls, when young, also went to monasteries to acquire basic functional literacy and numeracy. During the era of Myanmar kings, the only schools which existed were monastic, and children went there to learn and write the Myanmar language (and a bit of Pali), and also to study Buddhist literature. This accounts for the high (nation-wide) literacy rate which Myanmar has had for centuries. But monastic education became less prominent under British rule from 1886-1948. Though the western type of formal education has been adapted and adopted in Myanmar (as in other parts of the world) and monastic schools are no longer part of the formal education system, a type of informal monastic education is still practiced today in urban areas and, more so, in rural areas. Consequently, people are, by and large, religious and have great respect for education. The culture inherently serves as a very positive foundation for it. As a result of both the monastic tradition and the social welfare emphasis given by post-independence governments, learning and literacy have long been prestigious attributes in Myanmar. According to the 1983 Population Census, the country had a population of 39.35 million out of which 79% of those fifteen years and over were literate and 66% of ten-year olds were in school.

TABLE 1: Educational Data

(1) Number of schools-teachers-students by levels (Basic Education)

<u>Level</u>	<u>Schools</u>	<u>Teachers</u>	<u>Students</u>
Primary school	31429	118913	5202408
Middle school	1696	47666	1129859
High school	722	12754	290862
Total	33847	17933	6623129

(2) Student-teacher ratio (average): Basic Education

<u>Level</u>	<u>Urban</u>	<u>Rural</u>
Primary school	41	32
Middle school	26	22
High school	36	17

(3) Number of schools per 100,000 population (SY1987-88)

<u>Level</u>	<u>Urban</u>	<u>Rural</u>
Primary school	29.01	96.63
Middle school	4.12	4.39
High school	5.31	0.70

(4) Educational Structure

<u>Primary School</u>	<u>Middle School</u>	<u>High School</u>
(KG - 4)	(5 - 8)	(9 - 10)
5 years	4 years	2 years

(5) Language(s) of Instruction

Myanmar = KG - 8
 English = 9-10 (Science, Mathematics and Economics)

Distance Education in Asia and the Pacific

(6) Teacher Education - school/college/institute-teachers- students

<u>Level</u>	<u>Institution</u>	<u>Number</u>	<u>Teachers</u>	<u>Students</u>
Higher Education	Institute of Education	1	99	620
	Teacher Training College	4	185	1578
	Teacher Training School	14	271	2055

(7) Number of schools/institutes-teachers-students (Technical, Agricultural and Vocational Education)

<u>Institute/School</u>	<u>Number</u>	<u>Teachers</u>	<u>Students</u>
Government Technical Institute	10	477	6493
State Agricultural Institute	7	182	695
Technical High School	13	376	2879
Agricultural High School	9	94	110
Commercial School	3	23	150
School of Home Science	6	98	958
Handicraft School	7	56	240
Machine Repair & Maintenance School	7	56	94
School of Fishery	2	1233	

(8) Institutes of Higher Education

<u>Type</u>	<u>Number</u>	<u>Teachers</u>	<u>Student</u>
Professional institutes	6	741	13466
University	3	3347	79349
Degree College (4-year)	6	666	21121
College (2-year)	11	641	12964
Total	26	5395	126900

(9) BEHS passed students admitted to tertiary institutions (AY 1991-92)

BEHS ('A'list)	42001	
Places applied for	38649	92.01 %
<u>Breakdown:</u>		
Regular full-time on campus courses	23147	59.88 %
Workers College (YU)/ Evening classes(MU)	1069	2.76 %
Correspondence courses	14433	37.35 %

Note: BEHS = Basic Education High School (matriculation) Examination

YU=University of Yangon

MU=University of Mandalay

(10) BEd by correspondence (2-year courses) offered by Institute of Education, Yangon

1986-87	=2372
1987-88	=3340
1989-90	=2347
1990-91	=1177

(11) Literacy rate (national): 1983 census=79%

The Union of Myanmar continues to be committed to:

- (a) both quantitative as well as qualitative to bring about universal basic education; this implies such measures as the expansion of school facilities together with the continued improvement of instructional quality as well as internal efficiency;
- (b) upgrade technical, agricultural and vocational education (TAVE) and to encourage more students to join TAVE schools and institutes so that the manpower needs for mid-level technicians and personnel required by the changing economy could be met; this also includes the strengthening and expanding of commerce programmes under the Department of Technical, Agricultural and Vocational Education;
- (c) continue support to higher education, giving priority to programmes that are relevant to national needs and also to the improvement of basic courses in the arts and sciences;
- (d) strengthen certain education programmes in the light of the country's new economic orientation; these include business administration, commerce, management, banking, and international trade, as well as project identification, development, evaluation, implementation and operation;
- (e) develop an education system conducive to production;
- (f) provide higher education on a more equitable basis throughout the Union and to provide greater access to education in the border areas and other remote areas.

The major source of information regarding the population, the labour force, and employment in Myanmar is the Population Census of 1983. Of the population aged fifteen years and above, 79% are literate. High literacy rates are common to all age groups with the lowest being recorded as 63 % for the population aged sixty-five years and above. These rates demonstrate the strong emphasis given to state schooling over the recent past and perhaps also to monastic instruction especially in the rural areas. Of those aged twenty years and above the education level attained is: No education, 51.1%; Standards 1-4 (Primary), 3.2%; Standards 5-8 (Middle), 11.2%; Standards 9-10 (High), 5.1; and Diploma/Degree, 2.4% .

These figures demonstrate the continuing improvement in the educational level of the population. According to the Census, 62% of 5-9 year olds were in school; 66% of 10-14 year olds were in school; 21 % of 15-19 year olds were in school; and 6% of 20-24 year olds were in school.

Since 1948, when Myanmar regained her independence, education policy regarding the language of instruction has changed twice. The 1947 constitution states that the Myanmar language is to be the official language of the nation and the medium of education. The change from English to Myanmar was finally achieved in 1965 when all the schools were nationalised. With the enactment of University Law of 1964, the medium of instruction at the university level also became Myanmar. The second change regarding the medium of instruction took place in 1981 when English language proficiency was again considered as an objective of education and thus given greater usage as a medium of instruction. English began to be used for the teaching of subjects (mathematics, physics, chemistry, biology) for the science stream and for economics at the high school level. Starting from AY 1986-87, English was taught from the first year at school (kindergarten) upwards (instead of from the fifth standard).

This change in policy suggests the need for reinforcing the English language capability not only of language teachers but of teachers in general; expanding English language library holdings; a continuing improvement of textbooks and instructional materials; improving and expanding media-based programmes directed to teachers and students alike; and expanding

manufacturing capacity and greater usage of locally manufactured self-instruction packages. These needs also hold true for the correspondence courses offered by the arts and science universities, their affiliated colleges and also the Institute of Education.

Apart from the monsoon period from mid-May to mid-October, all parts of the country are easily accessible. According to Kyaw Sein (1987:468), 1985 figures for postal services in the country are: Post offices, 1,126; telephones, 55,936; telegraphs, 336; and telexes, 160. Since 1983, the Ministry of Education and MERB have sponsored an ETV(education television) project for High School. The Ministry of Education and MERB worked in collaboration with the Ministry of Information and TV Myanmar. Ten or fifteen minute programmes in high school English, Mathematics, Physics, Chemistry, Biology and Myanmar were aired twice a week on public television. The programmes were enthusiastically received but MERB had to rely on the public broadcasting system for production assistance. Though MERB had access to air time, it lacks manpower, know-how and facilities to produce top-quality TV presentations. The University of Yangon has also carried out the production of ETV materials. For improving distance education in Myanmar, a multi-media approach must be taken. Though radio education programmes have existed for years, no realistic evaluation has ever been made. Improvements must be made to make it more efficient.

HISTORY AND BACKGROUND

The Union of Myanmar has, since its re-emergence as an independent sovereign nation in 1948, achieved considerable success in expanding primary, secondary and higher education. There is near universal enrollment for the primary level and increasing numbers of students are able to advance to secondary education and then to higher education. A major effort was made nearly three decades ago to provide greater access to higher (or university) education with the enactment of the University Education Law of 1964. In addition to the existing universities (University of Yangon and University of Mandalay) and colleges, a number of university-level institutes came into existence. The dramatic increase in the number of students seeking university education, however, outstripped the capacity of these institutions. This effect was felt most by the arts and science universities and their affiliated colleges because, unlike the professional institutes, no limits were set on the number of places offered. In a period of great economic constraints, large scale expansion to ensure greater access and equity became increasingly problematic. The Ministry of Education decided that a distance-teaching by correspondence system was a viable and economical means of broadening opportunities for a university education.

The university education courses by correspondence were not to provide a second chance for those who could not follow the normal progression but to serve as a viable alternative mode to the regular on-campus courses. Second chance courses were already in existence in the form of the External Arts programme conducted by the University of Yangon in the 1960's (and phased out in the 1970's); the Workers' College which is affiliated to the University of Yangon; and evening classes at the University of Mandalay which have over the years tried to meet the continuing education needs of those who have left the normal university stream to work.

In 1976, to provide greater access to ensure equity and to bring about continuing education, the University Correspondence Course was first established. It was begun under the supervision of the Rector of the Arts and Science University, Rangoon (Yangon) and existed as a centralised quasi-government establishment. The center in Yangon served the distance education needs of the whole country. In 1981, the Correspondence Course was placed under the Department of Higher Education, Ministry of Education and became a regular governmental establishment. The day-to-day management of university education is, to a certain extent, decentralised, with the responsibilities being shared by the three universities and their affiliated colleges. The University of Yangon's affiliated colleges are Patheingyi Degree College, Sittwe Degree College, Workers' College, Hinthada College, and Pyi college. The University of Mandalay's affiliated colleges are Magway Degree College, Myitkyina Degree College, Taunggyi Degree College, Lashio College, Monywa College, Meiktila College, Shwebo College, Pakokku College, and Yenangyaung College. The University of Mawlamyine's affiliated colleges are Bago College, Dawei College, and Hpa-an College.

The prerequisite for admission to the university correspondence courses of the universities and their affiliated colleges is similar to those required of a student joining the on-campus courses. The correspondence courses offered are in Arts, Science, Economics, and Law. The duration for all the courses is five years with the exception of the law course which is for six years. The degrees offered are: BSc in Mathematics, Physics, Chemistry, Zoology, and Botany; BA in Myanmar, History, Geography, Philosophy, Psychology, and Economics; and LLB in Law (6 years).

For every level of basic education there is a corresponding type of institution for teacher education. It has been estimated that about 15,000 new trainees need to be produced by teacher education institutions so as to reduce the back log, to cope with increasing enrollment, and make up for normal attrition. In order to meet the certification needs of teachers, a two-year Diploma in Education course by correspondence was started in AY 1973-74. This course was offered by the Institute of Education, Yangon. The Diploma by correspondence course was phased out in AY 1981-82, and the two-year BEd by correspondence course was established. Enrollment for this course peaked in AY 1987-88. The enrollment for the first and second year was 1947 and 1393 respectively. In AY 1990-91, the enrollment numbers were down to 419 and 758. This course is conducted by the Institute of Education, Yangon.

There are no correspondence courses for middle school teachers. In 1978, a two-year Distance-Learning-Through-Correspondence course for non-certificated primary school teachers was established. The number of primary school teachers accepted was approximately 1000. Since then the number has risen to 2000. The responsibility for this course lies with State Teacher Training Institutions and the Department of Basic Education. The teacher education courses have proved attractive and more effective than the university correspondence courses because the former are integrated with career advancement.

OVERVIEW OF CURRENT SITUATION

Geographical Coverage

To provide greater access and to ensure a more equitable distribution of higher education, all seven states and divisions are covered by Universities or affiliated colleges. Chin State is covered by Mandalay University, Monywa College, and Pakokku College; Kachin State by Myityina Degree College; Kayin State by Hpa-an College; Mon State by Mawlamyine University; Rakhine State by Sittwe Degree College; Shan State by Taunggyi Degree College, and Lashio College; Ayeyarwaddy Division by Patheingyi Degree College, and Hinthada College; Bago Division by Bago College, and Pyi College; Magway Division by Magway Degree College, Yenangaung College, and Pakokku College; Mandalay Division by Mandalay University, and Meiktila College; Sagaing Division by Monywa College, and Shwebo College; Tanintharyi Division by Dawei College; and Yangon by Yangon University.

In AY 1985-86, to ensure educational standards, science subjects were offered only in areas where universities and degree colleges are located. It is only in these institutions that there are adequate laboratory facilities. The on-campus activities were programmed for Friday evenings and on Saturdays and Sundays. For enrollment in Economics courses, only students from townships which are easily accessible to Yangon were accepted.

Enrollments in Distance Education

Enrollments for the distance education courses peaked in AY 1986-87 when the total (nation-wide) enrollment was 105,587; AY 1987-88 and AY 1991-92 have shown decreasing figures in enrollments.

TABLE 2: Number of Students Majoring in University Correspondence Courses

Year	Arts	Science	Law	Economics
1985-86	61081	20609	6223	3865
1986-87	79799	17753	5249	2786
1987-88	70711	12238	3552	1380
1991-92	68371	7090	2548	899

Aims and Objectives

The main aim of distance education in Myanmar is to provide higher education on a more equitable basis throughout the Union and in the area of education to provide training and certification opportunities for primary and high school teachers. It also aims at providing an opportunity for those who are already employed to continue their education without having to leave their jobs. The rationale for distance education is that it is low-cost as compared to regular, on-campus education and that it ensures a better educated workforce which will in turn contribute to national development.

Organization and Management Structure

The management of the education system (including distance education as part of higher education) is top down, in line with overall government management. However, the day-to-day management has been decentralised to a certain extent and the regional centers function with autonomy (however minimal). The distance education system of Myanmar may be taken as having three main components.

In the Union of Myanmar, matters pertaining to education are administered by the Ministry of Education. The Department of Higher Education, a major department of the Education Ministry, functions under two Councils appointed by the State - The Universities Central Council and the Council of University Academic Bodies. University Correspondence courses (as well as a BEd by correspondence course at the Institute of Education) as part of higher education is administered by the Department of Higher Education with policy control by the two councils. Planning and management functions consist of approving courses; sanctioning finances; allocating and adjusting the higher education budget; and also providing leadership and supervision.

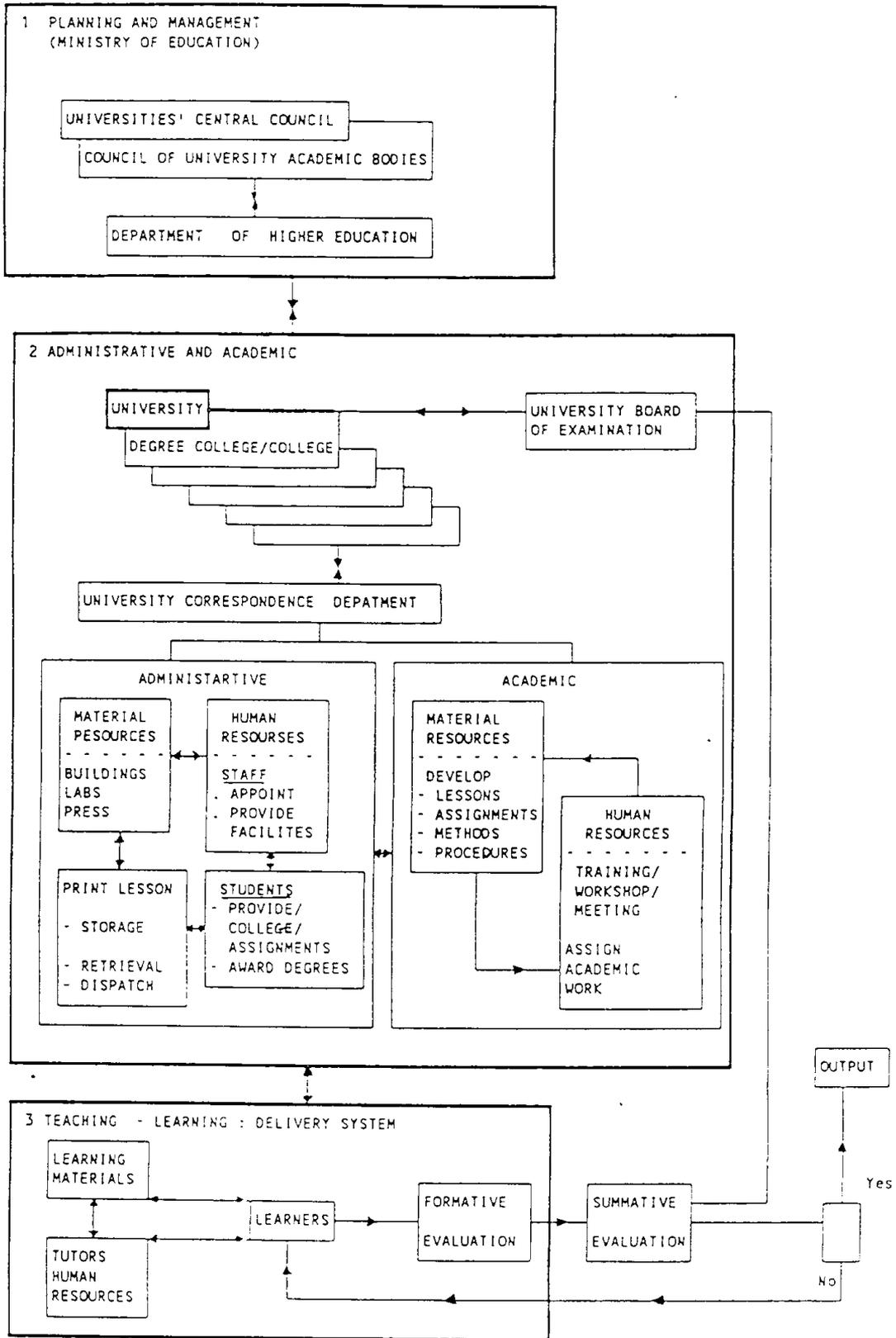
The second component of the system is administrative and academic which together make up the operational system. At the university level, the nominal head of the Correspondence Center is the Rector, and the Principal at the college level. Then, depending upon the size of the student population, section heads are appointed. The head of the academic section co-ordinates the effective utilization of human as well as material resources. He/She supervises the network of admissions and examinations, as well as distribution of books and assignments, and communication problems as they may arise. The head of the administrative/management section deals with problems that concern staff affairs, accounts, monetary transactions as well as general supervision.

The third component is the teaching-learning process as a function of the delivery system. The teaching-learning process takes place via a combination of correspondence study, radio broadcasts, compulsory on-campus attendance during weekends (for science and economics students), or short-term intensive teaching (for arts and law students).

The examination for the correspondence courses are held at the end of every academic year. Those who fail are allowed to repeat the course. The decision box in the flow chart indicates that if a student fails the examination he gets one other chance to take the examination.

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Table 3: Distance Education System - University



Financing Distance Education

Financing of education is the responsibility of the Government. Distance education in the form of the University Correspondence Course receives its allocation of funds from the Department of Higher Education. The fees collected from students have been treated as Government revenue since the University Correspondence Course was taken over in 1981 by the Department of Higher Education. University Correspondence, like other forms of education, are subsidized by the State. Annual fees collected from students are Kyats 375.00 (approximately US \$55.00) for Arts courses and Kyats 400.00 (approximately US \$60.00) for Science courses. Since the academic staff of the universities and colleges undertake the teaching functions, no extra expenditure is incurred for their salaries. This is also true of the teacher education courses.

Instructional System

The courses offered by the university correspondence departments are in Arts and Science leading to the award of the BA and BSc degrees respectively; those students undertaking the study of economics course are awarded the BA (Econ) and those studying law are awarded the LLB degree. Apart from the teacher education courses, no other vocational courses are offered.

Printed lessons and assignments are the main instruments of instruction for the teaching-learning process of the correspondence courses. Personal contact programmes are also an important segment of the process.

A large quantity of learning materials are sent by mail. The study methods have mainly been those of traditional correspondence study, that of prepared packages requiring written two-way communication. The learning materials are based on books prescribed for the on-campus courses of Yangon and the assignments are prepared by the staff of the various departments of the University of Yangon and the University of Mandalay, and also by the Institute of Economics in Yangon for the BA (Econ) courses. Following the initial package of books, the students are sent one assignment every fortnight. There are sixteen assignments altogether. The students are expected to complete them and return them at the same rate. The evaluation of these completed assignments is done by the academic staff of the universities and colleges and are sent back to the students every fortnight. In practice

however, this time frame is almost never adhered to. More often than not there are complaints from those students in the more remote areas of irregular delivery of their assignments and also of assignments being lost in transit.

The advantages of using a multi-media approach to distance education have not been exploited to the full. With the expansion and improvement of the national network both television and radio could be used for maximum effect.

Distance Education in Asia and the Pacific

Growth and Expansion

Since its establishment, university distance education has remained constant. Growth has taken place in the teacher education courses by correspondence. This growth, however, has been quantitative rather than qualitative. The main thrust of the education system is to strengthen certain education programmes in light of the country's new economic orientation. Growth areas for distance education would be in the areas of technology (vocational and professional), management, administration, business, banking, entrepreneurship, commerce and international trade.

Research

Little research has been carried out in this area. The Education Sector Study (Project No. MYA/90/004) which is being implemented jointly by the Ministry of Education, UNDP and UNESCO will include a study of distance education.

Problems and Issues

Distance education in Myanmar has not grown appreciably in terms of quantity, quality and effectiveness. The major weaknesses and problems discernible are: The inadequacy of the postal system to handle the volume of correspondence generated by the distance education programmes; the lack of multi-media inputs into the distance education programmes; the physical facilities are inadequate for storage and dispatch of instructional materials; the press facilities have difficulty coping with the volume of print required by correspondence programmes; the declining standards resulting from using materials which are not specifically designed for distance education; the shortage of paper which has cramped the correspondence activities essential for the success of the distance education programmes; the unavailability of micro-computers for record keeping and retrieval; the absence of an education management information system which prevents correct information from being available for decision making; the lack of regular feedback and evaluation procedures for maintaining standards and initiating growth and improvement; and the failure to address the need for staff development. Imposing a double load on academic staff (without any incentives) has adversely affected the quality of education and may cause a decline in the standard of education.

In order to improve distance education in Myanmar, the above problems and issues will have to be addressed and before any expansion of distance education is contemplated, viable solutions must be found. Only by doing so, will it be possible to shape the education system to meet the challenges facing Myanmar.

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APPENDICES:

- (i) Number of Students by Majoring in University Correspondence Courses, 1985-86 (page 209)
- (ii) Number of Students by Majoring in University Correspondence Courses, 1986-87 (page 210)
- (iii) Number of Students by Majoring in University Correspondence Courses, 1987-88 (page 211)
- (iv) Number of Students by Majoring in University Correspondence Courses (page 212)

ABBREVIATIONS

MOE = Ministry of Education

DHE = Department of Higher Education

DBE = Department of Basic Education

DTAVE = Department of Technical, Agricultural and Vocational Education

MERB = Myanmar Educational Research Bureau

ESS = Education Sector Study (UNESCO/UNDP)

Number of Students by Majoring in University Correspondence Courses
(1985-86)

Sr. No.	Year	Correspondence Courses (Yangon University)				
		Arts	Science	Law	Econ.	Total
1	I.Yr	4064	1715	645	542	6966
2	II.Yr	12265	4089	1545	1238	19137
3	III.Yr	6231	4144	1378	912	12665
4	IV.Yr	4092	3212	1413	1173	9890
5	V.Yr	-	-	1242	-	1242
Total		26652	13160	6223	3865	49900

Correspondence Courses (Mandalay University)		
Arts	Science	Total
1656	368	2024
8136	2261	10397
5079	1988	7067
2775	1589	4364
-	-	-
17646	6206	23852

Sr. No.	Year	Correspondence Courses (Mawlamyine University)			Correspondence Courses (Degree Colleges & Two-Year Colleges)			Grand Total				
		Arts	Science	Total	Arts	Science	Total	Arts	Science	Law	Econ.	Total
1	I.Yr	1039	144	1183	15744	1099	16843	22503	3326	645	542	27016
2	II.Yr	-	-	-	-	-	-	20401	6350	1545	1238	29534
3	III.Yr	-	-	-	-	-	-	11310	6132	1378	912	19732
4	IV.Yr	-	-	-	-	-	-	6867	4801	1413	1173	14254
5	V.Yr	-	-	-	-	-	-	-	-	1242	-	1242
Total		1039	144	1183	15744	1099	16843	61081	20609	6223	3865	91778

Source: DHE

Number of Students by Majoring in University Correspondence Courses
(1986-87)

Sr. No.	Year	Correspondence Courses (Yangon University)				
		Arts	Science	Law	Econ.	Total
1	I. Yr	4725	2181	328	284	7518
2	II. Yr	5764	1897	725	522	8908
3	III. Yr	9285	3995	1322	909	15511
4	IV. Yr	5816	3567	1383	1071	11837
5	V. Yr	-	-	1491	-	1491
Total		25590	11640	5249	2786	45265

Correspondence Courses (Mandalay University)		
Arts	Science	Total
2977	469	3446
1799	528	2327
7636	2146	9782
4702	1769	6471
-	-	-
17114	4912	22026

Sr. No.	Year	Correspondence Courses (Mawlamyine University)			Correspondence Courses (Degree Colleges & Two-Year Colleges)			Grand Total				
		Arts	Science	Total	Arts	Science	Total	Arts	Science	Law	Econ.	Total
1	I. Yr	1131	174	1305	20726	677	21403	29559	3501	328	284	33672
2	II. Yr	1113	127	1240	14125	223	14348	22801	2775	725	522	26823
3	III. Yr	-	-	-	-	-	-	16921	6141	1322	909	25293
4	IV. Yr	-	-	-	-	-	-	10518	5336	1383	1071	18308
5	V. Yr	-	-	-	-	-	-	-	-	1491	-	1491
Total		2244	301	2545	34851	900	35751	79799	17753	5249	2786	105587

Source: DHE

Number of Students by Majoring in University Correspondence Courses
(1987-88)

Sr. No.	Year	Correspondence Courses (Yangon University)				
		Arts	Science	Law	Econ.	Total
1	I. Yr	1695	428	241	49	2413
2	II. Yr	3748	2096	348	219	6411
3	III. Yr	4296	1336	631	400	6663
4	IV. Yr	8583	3874	1075	712	14244
5	V. Yr	-	-	1257	-	1257
Total		18322	7734	3552	1380	30988

Correspondence Courses (Mandalay University)		
Arts	Science	Total
1296	99	1395
2549	487	3036
4927	435	5362
6999	2170	9169
-	-	-
15771	3191	18962

Sr. No.	Year	Correspondence Courses (Mawlamyine University)			Correspondence Courses (Degree Colleges & Two-Year Colleges)			Grand Total				
		Arts	Science	Total	Arts	Science	Total	Arts	Science	Law	Econ.	Total
1	I. Yr	336	32	368	6900	101	7001	10227	660	241	49	11177
2	II. Yr	1079	191	1270	17886	560	18446	25262	3334	348	219	29163
3	III. Yr	3148	176	3324	7269	253	7522	19640	2200	631	400	22871
4	IV. Yr	-	-	-	-	-	-	15582	6044	1075	712	23413
5	V. Yr	-	-	-	-	-	-	-	-	1257	-	1257
Total		4563	399	4962	32055	914	32969	70711	12238	3552	1380	87881

Source: DHE

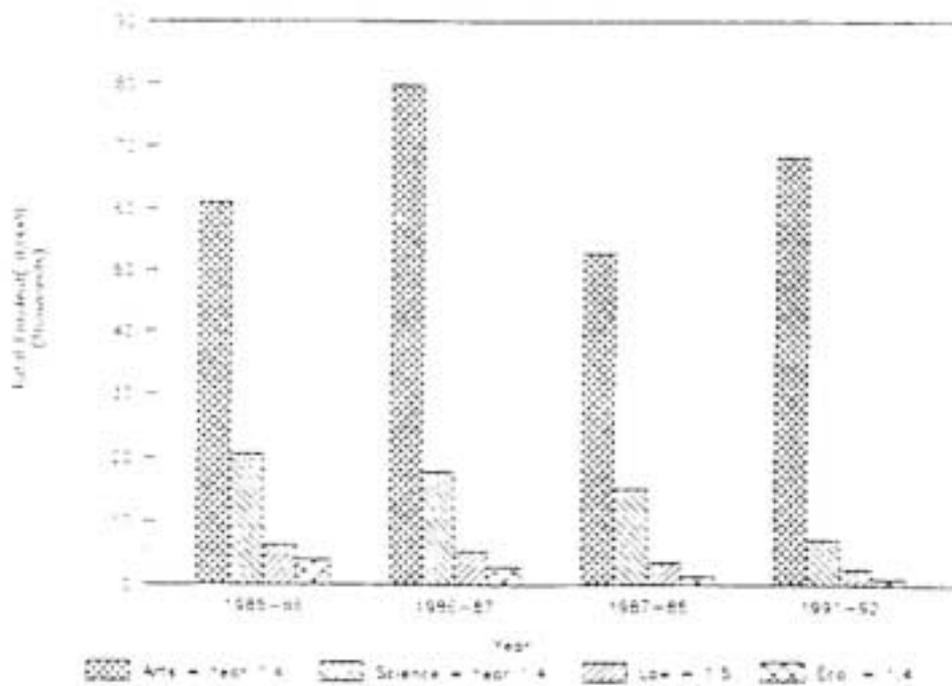
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Number of Students by Majoring in University Correspondence Courses

Year	Arts	Science	Law	Econ
1985-86	61081	20609	6223	3865
1986-87	79799	17753	5249	2786
1987-88	70711	12238	3552	1380
1991-92	68371	7090	2548	899

UNIVERSITY CORRESPONDENCE -

FIG. TOTAL ENROLMENT (By discipline)



Source: MERB/ESS

NEPAL

Gajendra Man Shrestha
and
Ratna Man Pradhan

THE NATIONAL CONTEXT FOR DISTANCE EDUCATION

Being a landlocked country with heterogenous physical and ethnic structures, Nepal is not only handicapped in its economic development but also in following a uniform educational strategy which is suitable for all groups of people and all regional needs.

Nepal has an area of 147, 181 sq. kms. divided for administrative purpose into five Development Regions; fourteen Zones and seventy-five Districts. Topographically, the country can be divided into three major categories: Plain Terai, Hills, and the Himalayas, each representing different climatic characteristics and diversities.

Basically Nepal is a rural-agrarian country with 92% of its population engaged in agriculture. Being one of the least developed countries, Nepal is confronted with a number of socio-economic problems. Judging from the prices of 1989, the annual per capita income of the Nepalese people is about USE 160.00. Out of the total population of 19 million, 42.25% live below the poverty line. Geographically, the incidence of poverty is highest in the Hills (50% of the total hill population) followed by the Mountains (44%) and the Terai (34.5%). With regard to the economic activities of the population, it is observed that 82.2% of the rural population are agriculture workers who are either illiterate or poorly literate with no formal schooling. Even in urban areas, the agriculture workers constitute 34.9% of the total urban population.

The underdeveloped human resource base is an issue that restricts development efforts in Nepal. The country has already implemented six Five-Year Plans and one Three-Year Plan. In spite of its thirty-three year long plan, Nepal still remains one of the least developed countries of the world. The development growth rate is hardly more than its population growth rate, forcing its people to live at subsistence levels.

The first Five-Year Plan witnessed the establishment of Tribhuvan University, including the College of Education and the Normal Schools. Similarly the next Five-Year Plans attempted to create a development infrastructure along with increasing production through various means. Development of education was one of the major endeavours of these plans and the increase both in number of schools and enrollment is the remarkable accomplishment of those plans. One of the outstanding features of the sixth plan is that it intended to fulfill the minimum basic needs of the people. Regarding the education sector, many changes in the structure of the education system were made following the recommendations of the Full Term Evaluation. The cycle of primary education was again extended up to the fifth grade. The lower secondary and secondary levels included grades Six to Seven and Eight to Ten respectively. A system of granting a lump sum was introduced to gradually reduce the government's obligation of school financing. A separate trade school scheme, as envisaged in the NESP, was introduced in place of the vocational school. Several innovative educational projects were implemented under this plan. They

Distance Education in Asia and the Pacific

were the Education for Rural Development (Seti) Project, Primary Education Project, Science Education Project, Functional Adult Education Project and Population Education Project. An aim was also made to provide teacher training programmes through radio for 2500 teachers per year.

The seventh plan continued adopting the objectives of the sixth plan. This plan allocated a sum of Rs. 3010.2 million to the education sector out of the total plan outlays of Rs. 29,000 million. Out of the total education outlays, the primary and adult education got 10% whereas the higher education sector received 24.9%. The following table provides the distribution of resources to various educational areas.

TABLE 1: Allocation of Resources in the Education Sector of the Seventh Plan (1985-1990)

AREA	Rs. in Million	Percent
Primary and Adult Education	302.4	10.0
Other Educational Programs	526.0	17.5
Art and Culture	17.0	0.6
Higher Education	750.0	24.9
District Level Projects	1341.6	44.6
Science and Technology	73.2	2.4
TOTAL	3010.2	100.0

Source: National Planning Commission, The Seventh Plan, pp. 126 and 771.

The seventh plan aimed at enrolling 87% of the primary age cohort which required 1000 additional schools and more than 12,000 teachers. In order to upgrade the quality of primary education, the Primary Education Project was initiated in six districts. The Education for Rural Development (Seti) Project implemented in 1980 was also designed to integrate education for rural development in the Far Western Development Region using the Resource Center approach which aims to expand to other regions after completing the experimental stage. The plan also proposed to gradually integrate lower- secondary and secondary grades so that the secondary education level consisted of grades Six to Ten. The plan also aimed at establishing six new trade schools, implementing the Access of Girls and Women to Education project; implementing the Science Education Development Project in twenty-five districts and providing teacher training both through the regular system as well as by radio. The Radio Education Teacher Training Project was to train 6000 teachers during the plan period. In order to reduce the admission pressure on campuses, The Plan also stated that it was necessary to take substantial measures for providing higher education through open media like radio and by correspondence. Similarly, in order to raise the quality of education, the plan also envisaged continuation of school broadcasting and other radio programmes. With regard to higher education, The Plan aimed at improving higher education by strengthening the existing campuses. It was also stated in The Plan that arrangements would be made to impart higher education through the open education system like the radio, publications, tapes and correspondence courses. The Plan classified higher education into the three categories of technical, professional and general. Related institutes as well as faculties were included in those categories according to the nature of the disciplines. By 1987, there were 59,477 students enrolled in higher education of which the Central

Development Region had the highest enrollment (40,018) and the Far-western Development Region had the lowest enrollment (311). This indicates very high disparity in the distribution of higher education.

Currently, there is no national plan in operation in the country. Recently His Majesty's Government has constituted a commission on education for suggesting measures for educational reform in the politically changing context.

In 1977/78, the education sector was given a total of Rs. 277,671,000 as a share of the total HMG budget. This was increased to Rs. 1,628,084,000 in 1987. This constitutes a 486 % increase for education in the government budget in a period of ten years. (The World Bank, 1990).

The growth in the economy has been very slow in real terms over the period from 1964 to 1986. The GDP measured in 1984/85 prices has increased at an annual growth rate of 2.75%, with agriculture GDP growing at a rate of 2.11%, and non-agriculture GDP at 3.84%. However, this GDP growth rate hardly exceeds population growth rate of 2.66%, keeping the standard of living virtually unchanged. This slow growth rate has a negative impact on the development of education in Nepal because of the poor economic condition of most of its people. This helps explain the high dropout rates, especially in bad crop years. Currently these drop-out rates are estimated to be 22 % after grade One and the repetition rate for grade One was 39% (SEES, 19). These rates are found to be high compared to developing country standards and these rates are even higher for girls. It is clear, therefore, that unless the productivity of the farmers is raised, the attainment of higher GDP in Nepal cannot be realized. Since education helps them raise their productivity in terms of increasing their capacity to adopt and use improved technologies, such as fertiliser as well as hybrids, and to sell the output more profitably, the internal efficiency of the education sector in general and the primary schools in particular has to be raised substantially. This helps them broaden their horizon of knowledge and at the same time makes them receptive to modern technologies.

According to the Census of 1981, the total population of Nepal was 15,022,839 with the growth rate of 2.66 per annum. In the year 2000, the World Bank projected Nepal's population to be 24,329,000. According to the 1981 Census, the cohort aged zero to fourteen years constituted 41.4% whereas the labour force (15-59) came to be 52.9% and elderly people comprising the 60-85 + were 5.7% of the population. In 1990, the zero to fourteen age group was projected to be 41.7% whereas the labour force would be related by 0.4% (52.5) and elderly people would increase slightly. In the year 2000, the child population would decrease by 0.5% whereas elderly people would increase by 0.5%, and the volume of the labour force would remain unchanged.

Although Nepal is a country of multi-ethnicity having several languages and dialects, generally the Nepal language is used by all ethnic communities as the language of communication. This language is also used as a medium of instruction in all public schools. Some private schools use English as the medium of instruction. At the tertiary level, both Nepal and English have been officially permitted to be used as the medium of instruction. In practice, English is preferred for teaching technical subjects whereas Nepal is used for teaching professional and general subjects.

Nepal has a three-tier system of education. Primary education consists of five years of schooling for the six to ten year old cohort and another five years of schooling completes the cycle of secondary education for the eleven to fifteen year old cohort. Higher education

comprises altogether six years of schooling categorized into three levels. The first two years of education is known as the Proficiency Certificate level and the second two years is called the Bachelor level. Similarly the Master level also consists of two years of education. The age group for higher education is seventeen to twenty-two years. In terms of the structure, Nepal has a system of five plus five plus two plus two plus two years of schooling.

The following are the objectives of different levels of education in Nepal as mentioned in the Seventh Plan. Primary education is to make students literate and develop their habit of becoming healthy. Lower secondary education is to build the character of students, develop the feeling of dignity of labour, stimulate the habit of working and prepare a base for secondary education. Secondary education is to prepare citizens capable of making contributions for all-round development of the country and to impart basic knowledge for obtaining higher education. Higher education is to prepare manpower required for national development and develop those people intellectually and make them capable citizens.

The Ministry of Education and Culture (MOEC) is responsible for school level education whereas Tribhuvan University is responsible for technical, professional and general education, while Mahendra Sanskrit University is responsible for classical Sanskrit education. The MOEC has three divisions dealing with planning, educational administration and general administration each headed by one Joint Secretary besides an additional Secretary and a Secretary for the whole Ministry. In addition to these, the Curriculum, Textbooks, Supervision Development Center (CTSDC) deals with school level curriculum, textbooks and supervisory aspects of education. The controller of Examination Office has been made responsible for conducting the School Leaving Certificate Examination given to all students completing ten years of schooling at the national level. Five Regional Directorates established in five regional development centers and seventy-five District Offices of Inspectors (Previously called District Education Officers) have been created for field level educational administration.

The two universities are headed by a Vice-Chancellor and the Pro-Chancellor besides the Chancellor. There are five technical Institutes and four Faculties responsible for their respective disciplines. Four Research Centers have been created to undertake research activities related to various disciplines.

With the promulgation of the NESP, the National Education Committee (NEC) was created to formulate educational policies and provide the directives when and where needed. This is the apex body in the entire system. Recently a council for technical and vocational education has also been created to develop strategies related to lower level technical and vocational education in the country.

Nepal witnessed a tremendous growth of schools soon after the dawn of democracy in 1951. Since then the number of schools has been increasing rapidly. In 1976, the kingdom had 11,577 schools which increased to 14,416 in 1980 with 5.6% growth rate per annum. In 1990, the number of schools reached 19,049 with 4.2% growth rate. This is promising growth but it still needs to be expanded progressively in order to cope up with the population growth rate (2.66%). Between the years 1976 and 1990, the growth rate at the primary level was 3.7% whereas this increased to 4.5% at the lower secondary level. This growth rate at the secondary level was 10% during the same period. The growth of enrollment at the school level education has been enormous. In 1981, the primary school age cohort was 2,116,000 of which 66% were in the schools. In 1985, this age cohort was estimated to be 2,240,000 with 1.4% growth rate. Out of this, 81% of the children were in

the school that year with 6.9% growth rate per annum. By 2000, the primary age group population has been projected to be 3,283,000 of which 89.2% will be in school.

Similarly, the secondary age cohort (11-15) was 1,543,000 in 1981 of which 20.3% were in school. For the year 2000, this age group has been projected to be 2,809,000 out of which 31.8% is expected to be the enrollment ratio.

Training of teachers at the secondary level has been the responsibility of the Faculty of Education of Tribhuvan University. Although it had conducted primary teacher training programmes for several years, currently it is the responsibility of the MOEC which has been training primary teachers through the basic teacher training programme of 150 hours duration. This Basic Teacher Training Programme has also been imparted through the Radio Teacher Training Project currently run by the MOEC.

By the year 2000, a total of 79,189 primary school teachers will be required in the country with 2.8% growth rate per annum. Similarly, the growth rate at secondary level would have to be 4.3% per year to employ 34,833 teachers for enrolling the only 32% specific age cohort. These projections have been made on the basis of the 1990 data. In 1999, the trained teachers constituted a total of 40.4% in the country (40.0% for primary, 37.0% for lower secondary and 50.0% for secondary levels).

Nepal has three mass-media that could be used for distance education. They are the radio, television and print media. In 1971, the HMG promulgated the communication plan with "Communication for Development" as its central theme having the following objectives:

- To avail active participation of general public in developmental activities.
- To strengthen the national unity of the kingdom.
- To improve the standard of education of the general public.
- To educate children of different levels.
- To expand international understanding.

Although Radio Nepal was formally started in 1950, in 1952 it became part of the public sector. Since 1984, it has been operating the programmes under the management of the Radio Broadcasting Service Development Committee. According to the Seventh Plan, the main policy of Radio Nepal has been to make radio broadcasting easily accessible to all the people of the country. Currently, it is on the air for seventeen hours per day, from 6 A.M. to 11 P.M. through two short wave and one medium wave frequencies. Under the national transmission scheme, Radio Nepal transmits three types of education programmes for ninety minutes a week. These programmes are educational programmes, School Broadcast and Radio Teacher Training.

Nepal Television (NTV) was formally established only in 1985 although it was brought into operation under the communication plan of 1971 with "Communication for Development" as its main theme. Currently the NTV has been covering 23% of the population throughout the country by transmitting its programmes for four and a half hours per day. Of this, thirty minutes are covered by educational programmes produced by Educational Television (ETV) daily. It has established hundreds of community viewing centers (CVCs) at about 300 locations within the coverage areas of the Kathmandu valley, Central and the Eastern Terai.

The postal service has been the oldest and most economical means of mass communication available in Nepal. It was established in the country in 1875 for carrying government documents to a few selected places. It was made public in 1876 and became a

member of the World Postal Union in 1956. It joined the Asia Pacific Regional Postal Union in 1982. It has established its national network throughout the country using surface mail and air mail. It also provides services like money orders and saving banks in some areas. The Seventh Plan outlined a number of policy guidelines in order to increase the efficiency of the postal services. Some of the major policy guidelines were to improve the quality of postal services in terms of its confidentiality and regularity; to introduce gradual modernization and mechanization; to extend economic services; to introduce improvements in the organizational structure of the existing postal services; and to mobilize people's participation in the development and extension of postal services.

The history of telephone services goes back to the year 1913 in Nepal. Before the implementation of the first Five-Year Plan, a number of steps were taken in the country to expand the trunk and automatic services in the limited areas of the country. During the First Plan Period, the Telecommunication Department was established in 1959. Since then a number of measures were undertaken to expand the facilities and enhance the efficiency of the telecommunication services. The objectives set in the Seventh Plan (1985-90) were

...to expand local telephone exchange and reliable trunk services in different urban and other important parts of the country; to develop and expand telecommunication media to integrate various parts of the kingdom and maintain regional balance.

The plan also stated that appropriate trunk telecommunication media for international trunk system would be steadily developed; local telephone exchange services would be expanded in all five development centers covering all places of national importance; trunk and telephone facilities would be expanded in all district and zonal headquarters; medium and lower technical manpower necessary for the operation would be trained; and inexpensive and appropriate technology would be selected to provide efficient services. The seventh plan aimed to distribute a maximum of 40,920 additional telephone lines in addition to the 27,780 telephone lines available in the country at the end of the Sixth Five Year Plan period.

HISTORY AND BACKGROUND

Distance education has been used in Nepal to support the teacher training activities only. The use of radio, however, was started by the College of Education for promoting adult education activities way back in 1957. With the introduction of the NESP in 1971, it was realized that conventional face-to-face training methods alone would not be able to meet the demand for trained teachers in the country. Until 1970, the College of Education was the only institution responsible for providing teacher training in Nepal. It imparted training to prepare secondary and primary school teachers through a four-year BEd programme. In spite of the tremendous efforts made by the College, the percentage of trained teachers could not be raised substantially in the country. The NESP made teacher training mandatory for obtaining permanent tenure in teaching and also for qualifying to receive salary differentiations. But due to various technical reasons, the Institute of Education (IOE) of Tribhuvan University (T.U.), which incorporates the College of Education, could not meet the training demand of the country. Thus, thought was given to finding some alternative strategies to mitigate the problem. IOE subsequently introduced a new programme called

Teacher Training Through Distance Learning in 1976/77. This programme was designed to upgrade the academic qualifications of under-School Leaving Certificate (SLC) graduates, and train in-service primary school teachers of remote areas. The programme was initiated to reduce the cost of training in-service primary teachers; expedite the training facilities; provide training for the teachers in out-lying areas; and adopt alternative structure and method of teacher training.

Originally, the plan was meant to be implemented in three phases. In the first year, the plan was to cover 150 In-service teachers in three districts followed by 300 in-service teachers in six districts in each successive two year period. For this purpose, IOE prepared the admission test, a distance learning team, the self-learning materials, contact session strategies and graduation requirements. The scheme was in operation for some years but was discontinued after 1980. Thus, the Teacher Training through Distance Learning program had the distinction of being a pioneer in the field of promoting teacher training other than through conventional face-to-face teaching.

In order to implement the strategy, IOE created a unit under its Extension Division and developed a set of model self-learning materials according to the B level curriculum as it is called, which included Teaching Language, Teaching Mathematics, Teaching Social Studies, Teaching Arts, Teaching Health and Physical Education, and Handbook of Student Teaching. Upon completion of the preparation of self-learning materials (SLMs), IOE developed a test based on Arithmetic, Nepali and English languages suitable for the eighth grade level students. The test was revised after examining its validity in two hill areas and was administered for the first phase programme. IOE assigned a team of experts consisting of two to three teachers of various subject areas and sent them to each of the selected districts along with six SLMs and other related instructional materials. The team contacted various interested In-service teachers with the help of District Education Officers (DEOs) and administered the entrance test. Those who passed the test were given a fifteen day orientation training in order to acquaint them with the methods of using SLMs. The scheme provided three months of self-learning period. During this period, the participants were expected to study the SLMs at home while working in the school, and to contact IOE in case of difficulty in understanding SLMs. The scheme also prescribed two months contact session in order to help the participants overcome their difficulties in understanding SLMs. The session was held during the long vacation period at school so that it would not interfere with the school programme. At the end of the session, the participants were given the final semester examination and successful candidates were awarded certificates.

In the first phase only three districts were covered by the programme with an enrollment of 137 out of 150 hoped for candidates. Out of this enrollment, 103 candidates were declared successful. In the second phase, it was extended to six more districts with 308 enrolled. During this phase, SLMs along with a teachers guide for the second semester were also designed and prepared. The successful candidates of the first semester were also enrolled in the second semester training. The entrance test was also revised. Similarly, in the third phase which was implemented in 1978/79, six more districts were included in the training scheme with 330 participants. IOE extended the scheme for the fourth year in four more districts instead of six districts as planned before. The number of participants in the fourth year was 339 although the quota was only for 200. In the fourth year of the programme IOE made necessary arrangements to conduct the second semester training in four districts covering three districts of 1977/78 and one district of 1976/77.

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This programme was discontinued after the fourth session of 1979/80. It would be relevant here to note that this scheme was designed for two semesters. To exert immediate impact on classroom teaching, the first semester was devoted to methodology and the second semester was designed to raise the academic standard of the participants by providing content teaching based on the high school curriculum. Altogether, the programme was operated in nineteen districts but the participants from two districts had the privilege of completing the whole programme. The remaining participants were given the opportunity of completing only one semester. This programme was financed by UNICEF and it received Rs. 300 thousand per annum, from the fund allocated to primary education. The reason for the discontinuation of the programme was the launching of the Radio Teacher Training Project in 1978. The Examination Section of IOE is still taking care of the unsuccessful candidates of the Distance Learning Programme.

The Radio Teacher Training Project (RETTP) was another alternative strategy adopted by HMG in 1978 to further expand the teacher training programme through radio in Nepal. Prior to this, primary school teachers with SLC, which is the minimum formal qualification required, constituted only 63% of the total teachers. As the conventional teacher training programme was restricted for a variety of reasons, including lack of qualified candidates, inadequate incentive structure, severe manpower shortages, high dropout rates and the problem of replacing the teachers working in the rural areas, the use of radio for training purposes was considered a cost-effective and functional strategy to replace, or supplement, the conventional one. As a result of this an agreement was signed between the HMG and USAID in 1977 to undertake a radio education project. In the following year, a five-year technical assistance contract was awarded to Southern Illinois University. The project was designed to develop an institution capable of producing and administering radio-based training programmes. The project was launched in 1978. Initially, it was implemented to train the backlog of untrained teachers working in schools together with the campus-based ten month training course. In this context, it would be relevant to quote the following statement to explain the causes for admitting the under-SLC teachers as a target group of the training:

The choice of under-SLC teachers as RETT's first target group was based on two assumptions: (1) that few new teachers would be added to this group, enabling the entire cohort to be trained within a few years; and (2) that such a delimited undertaking would serve as the 'breaking-in' phase for a radio-based, distance training system whose mandate then could be expanded in directions and on a scale as envisioned in the original project design (Holmes et al, 1990).

In 1981, the HMG dropped the compulsory training requirement for securing tenure, and as a result of this, the number of SLC pass teachers attending the conventional training decreased sharply.

The RETT had two consecutive projects (five and six years) with three programmes for two target groups. Within the eleven year period, the project laid emphasis on training of under-SLC teachers for nine years from 1980 to 1990. This programme ran parallel to the conventional face-to-face teacher training imparted in IOF campuses, with primary and secondary emphasis on pedagogy and course content respectively. With respect to pedagogy, Foundation of Education and Methods of Teaching were the major subjects, along with the concept of Rural Development to enable the teachers to act as change agents in their respective areas. Similarly, course contents included Nepali, Mathematics, Health, Social Studies, Art and Physical Education. This training programme designed for the under-SLC

teachers was discontinued when the Ministry of Education and Culture (MOEC) abolished such training. Within this period, six sessions altogether were run which enrolled a total of 6429 teachers from 72 districts of the country. Out of this, 84% (5371) of the enrollees completed the course, while 54% (3478) passed and received certificates enabling them to receive the training allowance provided by the government.

The RETTII was started in 1984. This second phase was developed as an instructional programme for primary teachers following the recommendations of the RETT I. The evaluation of the first phase indicated the increment of the knowledge of the participants in course contents, without the effect on attitudes or behaviour in the classroom. This necessitated the shifting of focus of the programme from teaching methodology to course content for raising the level of knowledge of the subject matter among the under-SLC teachers. In this context, the Radio Tuition Programme (RTP) evolved in Nepal in 1986.

The RTP covered the high school curriculum. Mathematics, English, Nepali and Science were originally included in the broadcasting program with the two-fold objectives of raising the knowledge of the under-SLC teachers in these subjects and helping them prepare for the SLC examination. Because the educational background of under-SLC teachers was extremely diverse, it was difficult for the programme to develop a standard curriculum which could meet the needs of the participating teachers. Therefore, the RTP produced lessons only in English for broadcasting. Even in this case, it was found that the English competency levels among the under-SLC teachers (14,000 in 1986), were extremely varied, making it difficult to produce a single package suitable to all participating teachers. Despite the difficulties confronted by the RETTP, a reasonably good English-by-radio instructional package was developed for RETTP without identifying the beneficiaries. Thereafter, an entrance test was administered to students in order to evaluate the level of their English competency prior to the second session. It was found that out of 2600 applicants, only 658 were selected for the test, of which only 100 candidates could score above 40%. This necessitated the lowering of the entrance standard from 40% to 32% which enabled 319 teachers to participate. Since this constituted only 12% of the under-SLC teachers of the ten districts, it was again considered too low. Hence, 473 teachers from ten districts were eventually allowed to enroll in the two sessions of one of the courses (Holmes et. al, 1990), and of these, a relatively high number of them (369, or 78%) took the post-test.

In spite of the anomaly between the project goal and the target group, the RETTP made promising efforts in using distance learning an alternative strategy to replace or supplement face-to-face teacher training. Acceptance of the MOEC to use radio-broadcasting for training in-service teachers under the new basic teacher training strategy could be considered as a recognition of its effectiveness. RTP was discontinued following the HMG's policy of not imparting teacher training to any under-SLC teachers.

In 1987, the RETTP was asked to run the Basic Teacher Training (BTT) course through radio while it was still operating the RTP. In 1987, HMG decided to begin a BTT course consisting of a 150 hour training package. Prior to this, primary teacher training programmes implemented by various training agencies, including RETTP, used to be ten months' duration. Since the government was determined to provide basic needs which also included education as one of the components to all the people of the country by 2000 A.D., providing primary education to all the primary age cohort had become the responsibility of the government. This required preparing around 80,000 trained teachers by that date. In

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the meantime it was realized that the training of such a vast number of teachers through face-to-face methods requiring ten months' duration would be difficult. Therefore, the government introduced BTT course as an emergency measure. S

The BTTcourse consists of general education and methods of teaching. The subjects in the methodology section are Nepali, Mathematics, Social Studies, and Health which were also the subjects of RETT, and two additional subjects, English and Science. Some minor subjects like Sanskrit, Art, Physical Education and Moral Education were also included in the programme (Holmes et al, 1990). Currently it takes nine months to complete the course cycle of 150 hours.

RETTPhas already produced a total number of 3467 under-SLC trained teachers and 1908 SLC-trained teachers. Altogether, RETTP has prepared a total of 5375 trained teachers in the country starting from 1982/ to 1989/90. Currently, the BET has an enrollment of 1800 In-service teachers starting from 1982/83 to 1989/90. The following table explains the nature of enrollment and its corresponding graduation rates.

TABLE 2: The Enrollment and Graduates of RETTP from 1981/82 to 1989/90

Year	Enrollment		Graduates	
	Under SLC	SLC	Under SLC	SLC
1981/82	1117	-	-	-
1982/83	1934	-	1103	-
1983/84	1285	-	1164	-
1984/85	1257	-	667	-
1986/87	896	-	553	-
1988/89	-	1590	-	1079
1989/90	-	1760	-	829
TOTAL	6489	3350	3467	1908

Source: Radio Teacher Training Project Office.

Source: Radio Teacher Training Project Office.

Many researchers undertook to assess the functioning of RETTP. A list of research reports is outlined in Appendix I.

Radio broadcasting for schools was started in Nepal in 1962 with the production of nine fifteen-minute general education programmes for students. The College of Education distributed 200 radio sets to teachers. In addition, a fifteen-minute adult education programme was also broadcast in 1963. These were broadcast weekly and continued until 1966. In order to enrich the broadcasting programme, HMG invited some foreign experts from UNESCO and the Colombo Plan to work in Nepal. Similarly UNICEF was requested to provide studio equipment. HMG included school broadcasting programme in its NESPin 1971 following the recommendation of UNESCO's report. At the outset, the Programme was started by the Audio-Visual Division of the Janak Educational Matenals Centre in 1971. With the creation of the Radio Unit in the Audio-Visual Division, a weekly Teacher's Programme designed for preparing teachers for the planned school broadcasting series began to go to air.

In 1972, the Radio Unit developed the demonstration school programmes for grade Four in Social Studies and broadcast them on an experimental basis in 1973. For this pur

pose, eighteen schools located in Kaski, Chitawan and Kavre were given radio sets along with evaluation forms to be filled in by the schools. Results of the evaluation forms were brought out in 1971 after the first forty-one broadcasts. The following were the evaluation results:

Programmes were suitable to students	95.7%
Subject matter was clear	94.3 %
Broadcasts were helpful	91.0%
Broadcasts helped children to understand what they didn't in the class	93.5%
Each of the 41 programmes was useful or very useful	100.0%

In 1975, a weekly programme for grades Four and Five in English and Social Studies was introduced respectively and some 500 portable radio sets were distributed to all grades One through Five of seventeen districts of the country. By 1976, 108 programmes were produced by the Radio Unit. These programmes were on: Grade One Nepali (10), Grade Two Nepali (10), Grade Three Nepali (10), Grade Four Social Studies (26), Grade Four English (26), Grade Five Social Studies (26), for a total of 108. All these programmes were transmitted over Radio Nepal at 2 P.M. on a cyclical basis. No new additional programmes were produced until 1978 due to lack of additional air time on Radio Nepal. Some modifications, however, were made during this period.

The Audio-Visual Division became part of the Textbook, Curriculum, Supervision Development Centre (CTSDC) in 1978 and Science programme for grade Four was broadcast on Thursdays. All the broadcast programmes of CTSDC were complementary to regular class-room instruction not leading to any certificate. The programmes were designed to accomplish the following twofold objectives.

- a. to assist teachers in planning and improving teaching/learning process;
- b. to assist students in improving their listening skills and in effectively learning the broadcast materials by means of activity participating in the learning process.

New ERA, a private research centre, conducted an evaluation study of the School Broadcasting Programme for UNICEF and submitted its report in 1979 along with a number of pertinent recommendations.

Currently, the School Broadcasting Programme of CTSDC consists of seven courses. Of these, three programmes are on Social Studies intended for grades One, Two, and Three; Nepali language has three programmes intended also for grades One, Two, and Three, and one programme on English is intended for grade Four. Programmes on both Social Studies and Nepali language are broadcast twice a month whereas the programme on the English language is broadcast twice a week. The programmes are broadcast for fifteen minutes each.

Although the School Broadcasting Programme was initially assisted by UNICEF, UNESCO and Colombo Plan in terms of equipment and expertise, it has not received any external financial support yet. Its equipment is by now quite old and it needs to be replaced if radio broadcasting is to be continued. Currently, it has been allocated an annual budget of approximately \$19,765.00.

THE LEGAL STATUS OF DISTANCE EDUCATION

Until now, no legal status has been given to distance education in Nepal. However, the graduates of the BTT course imparted through radio broadcasts receive certificates identical to those awarded by other agencies which use the face-to-face method to teach the same BTT programme.

OVERVIEW OF THE; CURRENT SITUATION

Aims and Objectives of Distance Education

The Seventh Development Plan (1985-1990) of Nepal included the Radio Education Teacher Training (RETT) programme. It aims to train 6,000 in-service primary school teachers, and proposes the use of distance education through radio and correspondence as a strategy to provide tertiary level education in order to ameliorate enrollment pressure on higher education (NPC, 1985, p.709 and 717). Apart from these statements, there are no officially stated national goals or aims of distance education.

Two institutions offer distance education programmes through Radio Nepal. These are the Radio Education Teacher Training unit offering training programmes to in-service primary school teachers in selected districts, and the Audio-Visual unit of the Curriculum, Textbook, and Supervision Development Centre (CTSDC) offering programmes to primary school students. Both of these units are under the administration of the Ministry of Education and Culture.

The main objective of the initial RETT programme was to develop and test a training programme for untrained, rural primary school teachers, which would use the medium of radio reinforced by written self-instructional materials and periodic workshops. In 1987, the scope of the RETT project was increased to design, produce and implement a 150-hour Basic Teacher Training Course for SLC-pass teachers consistent with the overall national policy of providing basic training to all untrained teachers (Holmes, et al, 1990, p. 14). Thus, the main objectives of the current RETT programme is to provide the 150-hour Basic Teacher Training course for in-service primary school teachers in selected districts. The objective of the school radio programme was to supplement the teachers in the class and to teach lessons from the textbook so that they can be easily understood by the students (New ERA, 1979, p. 5). It has remained more or less the same up to the present. Currently, the objectives of the School Broadcasting programme are:

- a) To assist teachers in - planning lessons in an effective manner, improving the teaching and learning process, arousing students' interest in the lesson presented, and recapitulating lessons to consolidate students' learning;
- b) To assist students in - taking active interest and participation in the lesson, understanding the presented lessons effectively, and improving their listening skills (CTSDC, 1987, p 4)

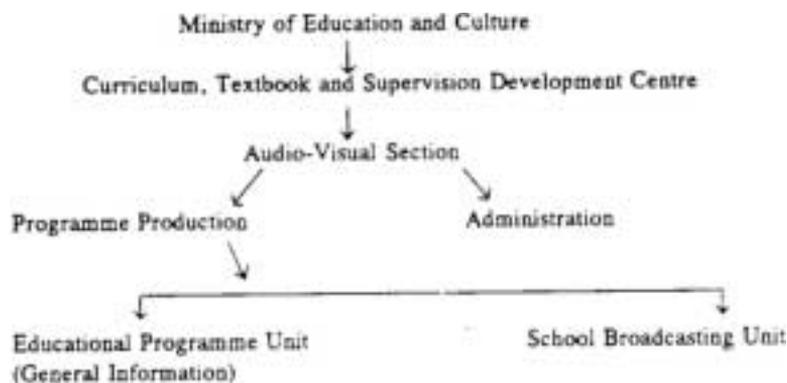
Control, Organizational and Management Structure of Distance Education

Distance education in Nepal is a national establishment, in the sense that it is part of the Ministry of Education and Culture (MOEC). It should be noted, however, that there is no national level policy-making board for coordinating the development and consolidation of education programmes in the country. The institutional status of distance education in Nepal is confined either to project status or it is a small section within a traditional establishment (CTSDC).

The RETT programme is currently run under the Primary Education Division of the MOEC. The administrative organization of the RETT project is composed of three different committees, the Policy Committee, Research Committee and Examination Committee, all chaired by the Joint Secretary of the Primary Education Division. They provide guidelines for the execution of the RETT project activities. The Policy Committee finalizes the programme for each fiscal year by fixing the training quota and the number of districts to be covered. The Research Committee decides on the scope and modality of research and evaluation activities. In this connection, the Research Centre for Educational Innovation and Development (CERID), a research centre of Tribhuvan University, has been assisting the RETT in the areas of research and evaluation. The Examination Committee sets the policies and selects persons to prepare examination questions. The grading of the examinations is carried out by subject experts assigned by the Examination Committee. The final examinations are prepared, administered, and marked in line with certification requirements.

The School Broadcasting Programme is managed by the Audio-Visual Section of the Curriculum, Textbook and Supervision Development Centre (CTSDC), which is a school level curriculum development wing of the Ministry of Education and Culture. The School Broadcasting Programme is a small, seemingly not so significant, part of the larger complex of curriculum and textbook development activities that are going on in the CTSDC, as can be seen in the diagram.

TABLE 3: Relationship Between the Various Distance Education Providers



The relationship between distance education and non-distance education is nebulous. Although some faculty members of the Faculty of Education (FOE) have been assisting the RETT on an individual basis, there are no official linkages between the FOE and the RETT. The School Broadcasting programme has been operating on its own, except that several educational personnel of other institutions contribute scripts for school broadcasts.

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Financing Distance Education

As the RETT project was started as a joint venture of His Majesty's Government, Nepal, and the United States Agency for International Development (USAID), the sources of financial support for the REST have been HMG and USAID. Financial resources spent on the establishment and development of the RETT project for the period 1978- 1990 are shown below.

TABLE 4: Expenditures on RETT I (1978-83) & RETT II (1984.90)

Budget Category	RETT I	RETTII	TOTAL
Technical assistance	2,158,869	848,973	3,004,842
Training	222,432	249,139	471,571
Evaluation (external)	0	34,679	34,679
Local support cost (USAID)	353,304	240,310	593,613
Operating cost (HMG)	878,639	442,493	1,321,132
Commodities	2,676,584	544,060	3,220,644
Building construction	109,032	186,762	295,793
Total expenditures (in constant 1988 \$)	\$6,398,860	\$2,543,415	\$8,942,275

Source: Holmes, et al. Training Teachers at a Distance: A Case Study of Nepal's Radio Education Teacher Training Project. December 1990. p.72.

It may be noted that the first phase of the project was about two and a half times more expensive than the second phase. This was mainly due to expenditures on commodities, including the purchase of a short-wave transmitter, and technical assistance in the form of expatriate advisors.

The relative contribution of HMG and USAID to the launching of the RETT project is shown in the table below.

TABLE 5: Expenditure for RETTII Project (1984-1990) by His Majesty's Government and USAID (in US Dollars)

Budget Category	HMG	USAID
Budget assistance	-	794,554
Training	-	233,996
Evaluation (external)	-	32,571
Local support costs	415,598	225,703
Commodities	-	510,992
Building construction	-	175,410
Total (in 1988 \$)	\$415,598	\$1,973,226
	\$442,493	\$2,100,921

Source: op. cit. p.70

It may be seen from the above table that an overwhelmingly large proportion of development cost has been borne by USAID (about 83%). Only the operating cost was borne by HMG. The USAID assistance to the RETT project ended in September, 1990. The government allocated budget to the RETT in the current fiscal year (1990/91) is US\$55,035. This amount is 0.12% of the total education budget. The government allocation of budget to the School Broadcasting Programme is US\$19,765, which is about 0.4% of the total education budget. Due to lack of resources, and financial as well as technical expertise, the School Broadcasting Programme is in a state of stagnation, and even deterioration.

Geographical Coverage

The RETT programme has focused on the districts in the areas around Kathmandu. This is because the project personnel wanted to restrict coverage to Radio Nepal's medium-wave reception areas, as well as the MOEC allocation of basic teacher training quota in the specific districts to be covered by RETT.

Instructional System

The radio-based basic teacher training programme administered by the RETT project consists of the 150 hours of instruction which is broken down into 120 hours of radio lesson and 30 hours of practical session. Altogether 480 radio lessons of fifteen-minute duration spread over 240 broadcasts have been produced. The training curricula covered all major subjects taught in primary level, plus Pedagogy, as shown below:

<u>Subject</u>	<u>Number of lessons</u>	<u>Hours</u>
Pedagogy (Education)	40	10
Teaching Nepali	100	25
Teaching English	80	20
Teaching Mathematics	100	25
Teaching Science	50	12.5
Teaching Health	50	12.5
Teaching Social Studies	50	12.5
Other subjects (Art, Physical Ed.)	10	2.5
Practical session (face-to-face)		30
TOTAL	480	150

The radio lessons are broadcast six days a week for approximately nine months. Teachers are provided with a set of Self-Instructional Materials (SIMs) comprising 1-2 page units corresponding to each of 480 radio lessons.

The RETT project also includes a supporting Resource Teacher System, which provides the opportunity to meet once a month with fellow trainees (on the average 25 teachers in a cluster) and one or more resource teachers (high school subject teachers) to discuss and clarify issues related to training. A final examination is conducted at the end of

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each course. Teachers must pass all of the seven subjects with 50% marks in order to pass the course. Successful teachers are awarded training certificates which entitle them to receive a training allowance (currently Rs. 65 a month) on top of their salaries.

The School Broadcasting Programme is based on textbooks. Each lesson is of fifteen minutes' duration. The number of lessons broadcast in different subject areas are Nepali I, II, and m; Social Studies I, II, and m; and English IV.

Research Activities in Distance Education

Research activities in distance education are confined to a base-line survey of teachers willing to enroll in RETT; radio reception quality; reactions of participating teachers to the content and quality of programmes; and achievement at the end of the programme.

In addition to annual progress reports, major evaluation studies of the School Broadcasting Programme and Radio Education Teacher Training are carried out.

Enrollment in Distance Education

The current enrollment in RETT is 1800; the current enrollment in CTSDC is 110,440; the number of graduates in RETT is 1800; the number of graduates in CTSDC is 110,440; the total number of RETT graduates is 5375.

International Affiliation and Cooperation

Both RETT and School Broadcasting programmes have not so far obtained membership in any international institution. Both programmes have received foreign assistance. RETT received such assistance first in 1978 from USAID following the agreement between HMG and USAID. Similarly the School Broadcasting Programme received assistance from USAID, UNICEF, UNESCO and Colombo plan in the form of equipment, expertise and studios.

Growth and Expansion

With regard to RETT, the financial provision and face-to-face sessions were decreased whereas distance education programmes and local study centers were expanded. Study material and textbooks, the teaching force, the variety of courses offered and the broadcasts remained stable. With regard to school broadcasting, the financial programme was expanded, whereas audio-visual aids were decreased. Similarly, distance education programmes, study materials and textbooks, the teaching force and broadcasting programmes remained stable. Neither programme plans to expand distance education in the near future, and will maintain the status quo.

It appears that there lacks a clear policy on the part of the government regarding the development of distance education in Nepal, although it has shown some interest in using mass media as an alternative strategy for extending educational opportunity to the people.

Problems and Issues

Distance education in Nepal is gaining popularity both from a governmental perspective and from the participants as well, because: it accommodates those who cannot join the regular programme; it provides an opportunity to in-service teachers to upgrade their academic and professional skills; it reduces the shortage of trained teachers in deficiency areas; it is cost-effective, and the existing media technology can be used for providing learning opportunities to participants, thereby meeting the education components of the Basic Needs Components.

A major factor hindering the distance education programme is lack of a clear policy and the legal status of distance education. Although mention was made in the Sixth Plan of using radio broadcasting for training teachers, specific policy and strategies were not given in the documents. The only legal status has been that the trained teachers of BTT programmes receive the same certificate awarded to other participants of regular BTT programmes. No law or decrees have been issued so far regarding distance education. The lack of a comprehensive organisational structure is also a problem. At present there is a dual unit in the public sector conducting distance education - RETT and School Broadcasting. The facilities available in the RETT can be utilized for the School Broadcasting Programme too. The programme could be much more cost-effective. The existence of two units independent of each other creates a problem of double infrastructures, besides higher financial involvement. These two units should be converted into a National Distance Education Centre.

Lack of adequate technical expertise is another significant issue. The distance education programmes are confronted with a lack of adequately trained technicians which restricts the development of various programmes. For instance, the SIM does not contain self-instructional (programmed instruction) features. RETT has been supported by USAID but the School Broadcasting Programme does not have any such support now. These programmes are hampered by inadequate budgetary provision. Lack of a comprehensive plan and a sound vision or direction means that both the programmes are being run as ad hoc programmes because they do not have any comprehensive plan. The programmes lack sound vision or future direction for distance education. Cultural constraints are a real limitation as well, as Nepal is a country of multi-ethnicity. Different ethnic groups have different beliefs and value systems. Thus one uniform programme may not be suitable for all. The programme has to cater to the interests of different groups and this also restricts the development of distance education. Lack of air time is an issue because at present, all the distance education programmes are broadcast over Radio Nepal. Being a commercial enterprise, Radio Nepal has to sell its time to different clients on a competitive basis. Currently Radio Nepal has allocated thirty minutes per day to RETT programmes and around twenty-three hours to School Broadcasting Programmes. Radio Nepal cannot provide additional air time to distance education activities, and the choice of broadcasting time also depends upon the interest of Radio Nepal. This limited air time and restricted scheduling of the programmes creates a major constraint to the development of distance education in Nepal.

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NEW ZEALAND

Tom Prebble

THE NATIONAL CONTEXT FOR DISTANCE EDUCATION

New Zealand society is passing through a challenging period as it attempts to respond to developments in the world economy. For the first century or more of European settlement in New Zealand, the economy was tightly specialised on the production of primary produce for the European market. From the introduction of refrigerated shipping, through to Great Britain's entry to the European Economic Community in the early 1960's, the export of wool, meat and dairy products to Europe accounted for over three quarters of New Zealand's overseas earnings. With a relatively small population, and an efficient farm sector, these overseas earnings supported a standard of living virtually unmatched during the 1950's. During the fifties and sixties New Zealand attempted to diversify into a range of manufacturing and service industries which were intended to replace imports from other countries. These industries grew under the protection of a comprehensive array of tariff barriers and other protective legislation. These industries provided New Zealanders with a period of virtually full employment from the end of the Second World War through to the mid seventies. The same period saw the expansion and consolidation of a comprehensive range of public services, and a social welfare system that was unequalled in its day.

But, while New Zealand built its manufacturing industries and public services during this post-war period, the terms of global trade began to shift. This shift has not been in favour of New Zealand. Along with other primary producing countries, New Zealand has been hit by a sustained drop in the value of commodities, and by declining access to its traditional European markets. During the sixties public expenditure began to exceed income, and the deficit had to be made up by international borrowing. New Zealand started to slip behind its trading partners in economic development as its economic structure became less and less appropriate to the international marketplace.

The worsening debt situation finally forced the Government to embark on a radical programme of economic and social reform in the mid eighties. The economic side of the policies, which were implemented first, were aimed at forcing the productive side of the economy to compete on the international market without the protection of the old tariffs and subsidies. This led to a major restructuring of farming and manufacturing with many thousands of jobs lost. From an unemployment rate of virtually nil in 1970 the level rose steadily to a rate of around 10% by the late 1980's. Simultaneously, the Government began to reduce its own direct involvement in the economy. Many government departments and services were corporatised and even privatised. Other government services were re-organized to achieve greater economy and accountability. More recently, driven by the need to reduce the public deficit, the Government has attempted to reduce its level of spending on social services. Increasingly, social spending is being targeted on the basis of need, with the consumers of such services being expected to assume the responsibility for a greater share of the cost.

These economic pressures are being felt in education, and in distance education specifically. The Government is calling for an increase in education and training to service the anticipated growth of export-driven industries. But it is seeking this expansion at a time when fiscal pressures prevent a continued increase in public expenditure on education.

The population of New Zealand at the last census in 1986 was 3,307,084. At an annual increase of .8%, the population in 1991 stands at approximately 3,441,500.

New Zealand society has been becoming increasingly urbanized. Whereas in 1926 32% of the population were living in rural areas and 68% in urban areas, by the 1986 census, just 16% were left in rural areas with 84% classified as urban. This trend has been reflected in policies to amalgamate rural schools, and to bus remote children longer distances to school. This trend is also reflected in the demography of distance education enrollments. Increasingly, rural enrollments are the minority of distance education enrollments except in the school-level enrollments of the Correspondence School.

As well as the drift from country to city, there continues to be a strong drift from south to north. Auckland is New Zealand's fastest growing population centre, and accounts for one quarter of the total population. Smaller regional centres, especially those in the south island, tend to have very limited growth. Both these demographic features tend to be reflected in distance education enrollments.

People of European descent constitute the great majority of New Zealand's population. The Maori population suffered a major decline in the first century following colonization. However this trend has been reversed since the last world war, and today Maori constitute some 12% of the total population. This rapid recovery of Maori numbers means that Maori society is relatively young, and has a larger proportion of school-age children than does European or, as the Maori say, Pakeha society.

The other large element in the population are Pacific Islanders, some 100,000 residents and citizens coming mostly from the Cook Islands, Niue, the Tokelaus, Tonga and Western Samoa. Ethnic Chinese, both long time residents and new arrivals, and ethnic Indians, mostly from Fiji, make up the remaining significant groups.

During the eighties, small groups of Cambodian and Vietnamese refugees have arrived, along with growing numbers of business migrants from Hong Kong.

Until recently, English has been the official language of instruction in all public educational institutions for the past century or more. Since the mid-eighties New Zealand society has been re-evaluating its partnership obligations to the tangata whenua or indigenous Maori citizens. Protection and promotion of language is now seen as one of these obligations, and schools and tertiary institutions are being challenged to promote the use of the Maori language. An important breakthrough occurred in the early eighties with the development of a network of kohanga reo or Maori language nests for pre-schoolers. These were the first significant development of education in Maori in several generations, and have excited high expectations of similar developments at the school and tertiary levels. To date, developments at these levels have been slower. A handful of primary and secondary schools now operate in a bi-lingual or exclusively Maori language mode, and at the tertiary level, several small regional institutions are attempting to offer instruction in a bi-lingual mode.

These developments have yet to have much impact on distance education. Rather than offering courses in the Maori language, it is more likely that distance educational institutions will make their study materials available to the growing number of small, independent Maori educational institutions which are getting established.

Distance Education in Asia and the Pacific

After one hundred years of relative stability in organization and administration, public education in New Zealand is passing through a major structural re-organization. The founding legislation of 1877 set in place a tripartite system for primary education: a strong central department with wide funding and policy powers; a series of regional boards with responsibilities for school management and staffing; and individual school committees with relatively modest responsibilities for building maintenance and minor spending. The incorporation of secondary education in the state system came somewhat later in 1914. The secondary school, which had been operating as independent and local initiatives for many years, managed to avoid the control of the education boards, and for the next seventy years, reported directly to the Department of Education, or its regional offices.

University education in New Zealand began with the establishment of the University of Otago in 1869. Four years later the New Zealand University Act laid the foundation for a collegiate structure for any further development. The New Zealand University grew steadily during the first half of the century. At first it had four constituent colleges at Auckland, Wellington, Christchurch and Dunedin. Thirty years ago this structure evolved into one of separate universities operating under a University Grants Committee which was responsible for curriculum decisions as well as funding disbursement. The original four universities have been joined by Massey University, Waikato University and, most recently, Lincoln University. Teacher education was carried out in seven teachers colleges which were directly accountable to the state Department of Education.

Since the mid 1980's the education system has undergone radical restructuring. The central Department of Education has been reorganized as a ministry with policy advisory and funding responsibilities rather than system management functions. The middle order agencies such as Education Boards and the University Grants Committee have been abolished. Each educational institution, from the largest university to the smallest school, has been reconstituted as a body corporate with its own council or board of trustees broadly representative of parent or consumer viewpoints and fully responsible for the directions and activities of that institution. Boards have been required to negotiate charters with the Ministry of Education upon which all subsequent funding and evaluation will be based.

Tertiary education has been reorganized along similar lines. Universities, colleges of education and polytechnics now operate under a common funding regime. A national qualifications authority has been set up to approve and monitor all programmes, and to attempt to introduce greater portability of credits between institutions and levels. Most recently, a base-level system of banded institution funding levels and student fees has been introduced, with institutions being free to set their own supplementary student fees. The ground is set for a period of strenuous competition among educational providers.

The major media of communication have always been the subject of public control and policy. Until recently each communication medium has generally been the preserve of a government department which determined policy for the use of the medium and controlled access to it as well. The high level of state involvement ensured an acceptable level of service throughout the country, but may not have encouraged their most creative use by sectional groups such as distance educators. But since the mid-eighties, as part of the Government's policy of reducing its involvement in the marketplace, most communications media have been subject to de-regulation, corporatization, and even full privatization. The full impact of these moves on distance education can only be speculated upon, though some trends are already apparent.

The dominant medium of communication for most of New Zealand's distance education institutions is print. The successful use of this medium depends on an efficient and reliable postal service. New Zealand has always enjoyed an excellent postal service, and indeed, the presence of a high quality postal service probably accounts at least in part for New Zealand's early involvement in distance education. Distance education providers are required to meet all postal charges as with any other customer. The New Zealand Correspondence School has always offered a free postal service to its students, but this has always been funded by a direct payment between the Education Department and the Post Office.

With one or two noteworthy exceptions distance education providers have made limited use of communication media other than print. In part this has been through deliberate choice on the part of the institutions; but in part too because access to these media was seldom easy for the providers. An exception was radio. For several decades the Radio In Schools programme provided supplementary educational programming targeted at schools. This programming and the broadcast time was made available as a public service by the New Zealand Broadcasting Corporation. Simultaneously, the Correspondence School embarked on a daily series of broadcasts to its pupils scattered throughout the country. The broadcast to schools were eventually curtailed but the Correspondence School continues to take an hour each day to make contact with its students. Broadcasting, along with other sectors of the government service, has now been de-regulated and corporatised, and Radio New Zealand is in the process of re-negotiating the terms of its broadcasting agreement with the Correspondence School. At present the Government is inclined to let such issues be resolved by the operations of the marketplace, but such a hands-off stance may well threaten this use of a public medium for distance education.

In the meantime, other providers of distance education have made very little use of radio. The development of FM radio has freed up time on the AM network, both nationally and locally, but little constructive use has been made of these opportunities for distance education.

One provider, Massey University, has made use of broadcast television over the past three years. But here again, this development has not been encouraged or supported by explicit government policy. The public television network, in an effort to reduce its costs, has sold the university an hour of broadcasting each week outside the normal viewing hours. Most of the major institutions have, however, made some use of videotape in their distance tuition. The Correspondence School provides a "video-letter" service to allow staff to correspond with individual pupils.

Telecommunications is another medium that is under-used by distance educators. Institutions pay their telephone bills like any other consumers, and this has served to limit the use of this medium. Otago University has developed its own distance teaching programme using the telephone system and a one-off start-up grant from the Government. But since then the university has received no special treatment, and currently finds it difficult to resource its teleconferencing service. Most of the other distance education institutions use teleconferencing to a limited extent, either renting Otago University's Unitel system by the hour, or dealing with New Zealand Telecom.

Computer communications are widely used in the commercial market, and Telecom, the newly privatized corporation responsible for telecommunications, is promoting this service energetically. Most distance education units employ computer telecommunications

for institutional purposes, but few extend this service to their students. Massey University has a policy of home-ownership of computers for some of its students, and has made a commitment to providing computer communications services for its distance education courses. The Correspondence School lends sixty laptop computers to upper primary and junior secondary students, and also teaches computing courses to senior secondary students with access to computers in their schools.

Fax is another medium that is widely employed at the institutional level but is only used to a limited extent to support distance teaching. A small number of students at each of the major distance education institutions submit their assignments by fax, with varying levels of encouragement from the institutions.

New Zealand is in the process of installing ISDN systems and capability in its telecommunications. Potentially this will open up a number of exciting possibilities for distance education; in particular for the development of videoconferencing and allowing student access to enormous databases. The University of Victoria in Wellington is piloting the use of this technology for distance education, but the pricing structures outlined by New Zealand Telecom make its use by distance education highly problematic for the immediate future.

HISTORY AND BACKGROUND

One of the distinguishing features of distance education in New Zealand is that until very recently there has been only one major institutional provider in each of the educational sectors. Whereas in similar countries such as Canada, Australia and the United States there are literally dozens of institutions providing distance education, in New Zealand there has been just one institution providing distance education at the school level, another at the polytechnic level, a third at the university level and a fourth providing continuing education to teachers at a distance. The history of the development of distance education in New Zealand is essentially the history of these four institutions.

The New Zealand Correspondence School

At the time of the 1877 Education Act the population of New Zealand was just half a million, two thirds of whom lived in rural districts. Successive governments attempted to build schools accessible to most children, but, inevitably there were many who lived beyond the reach of the most far-flung one-room schoolhouse.

It was pressure from rural parents, allied with the establishment of a correspondence school in Australia that led to the foundation of the New Zealand Correspondence School in 1922. The school opened with a roll of 167 children, a figure that more than doubled by the end of the first year. Right from the outset, enrollments came not just from rural areas but also from house-bound sick children and institutionalised children.

In 1928 a secondary division was established within the school which added fifty more pupils to the roll of almost 8W. Initially the school could offer only a limited range of subjects, but as enrollments grew the range was progressively widened until it became the most comprehensive available in the country.

The teaching methods and support systems put in place in the early years have stood

the test of time and remain the main elements of that institution's offering. Courses were largely print-based, relying on a steady stream of printed study guides or assignments flowing between the school and the individual students. These printed study materials have been augmented over the years with cassette tapes, kits of material for more practical subjects, musical instruments and even with computers in recent years - all sent out round the country in the familiar green canvas Correspondence School bags. The Correspondence School made early use of radio with the first broadcasts to students beginning in 1932. Sixty years later the school remains the only educational institution to make regular use of radio broadcasting on a national scale. Personal contact with students was limited until the thirties when some of the staff were sent around the country visiting students on an annual basis. This arrangement has since been formalized and now every region has its visiting teacher. Closer contact was obtained through the annual month-long residential school established at Massey Agricultural College in 1949, and continued every year since.

In the late 1940's adults seeking part-time enrolment, but unable to attend evening classes, started to enrol. In the early 1960's when single subject passes in the School Certificate and University Entrance Examinations became creditable, part-time enrollments soared. Within a very few years these adult enrollments represented the major portion of the enrollment.

Another developing role for the school was as a back-up service for small secondary schools unable to provide tuition in a wide range of subjects. Today, most New Zealand secondary schools have students enrolled with the Correspondence School for one or two subjects.

The Open Polytechnic of New Zealand

During World War II provision was made for servicemen to begin or continue their studies towards a technical or vocational qualification through the Army Education and Welfare Service. At the conclusion of the war, the A.E.W.S. study course became officially the Technical Correspondence Institute with emphasis on the rehabilitation of servicemen. But so successful was the correspondence school courses that professional, trade and industrial organisations began requesting a wider range of subjects.

The Institute started in 1946 with a staff of four tutors teaching twelve subjects. By 1969 it had grown into an institution with 236 full-time tutors and 60 administrative staff, providing 603 different courses to more than 14,000 students. Growth continued at the same healthy rate, and in 1991 the institute, recently retitled The Open Polytechnic of New Zealand, had a staff of 500 and an annual enrollment of around 33,000 students.

In the early years of the Institute's work a considerable proportion of its students were apprentices taking compulsory theory courses as part of their trade training. By the late 1950's there was a growing need for well-trained technicians and the institute moved to meet this need. Gradually the balance of correspondence students swung from apprentice-level training to the more advanced technical and vocational qualifications. During the same period the technical high schools in the four main centres were reconstituted as technical institutes. For several decades these school had offered trade training through evening classes. Now they were able to focus all their efforts on this tertiary level of training.

Extramural University Courses

Part-time study was a significant factor in the decision of the University of New Zealand to embark on extramural studies in 1960. Prior to this time the constituent colleges of the university had been forced to provide exemption from lectures to many students living in remote areas. The teaching profession added focus to this problem. During the 1950's New Zealand's primary school teachers were starting to upgrade their qualifications through part-time attendance at university. However, more than half of the country's two thousand primary schools were in rural areas and beyond easy access to the country's four university colleges. It was on the recommendation of the teachers' professional organization that the University of New Zealand finally recommended to the government that special provision for correspondence education be vested in a single university. Victoria University of Wellington agreed to take on this responsibility, and in 1960 a branch College was established in Palmerston North some 140 kilometers away.

The principles upon which the extramural courses were to be taught were to endure to the present day. The new institution was to offer tuition in the conventional contact mode as well as extramurally by correspondence; there was to be no differentiation between courses taught internally and extramurally; students in each stream would sit the same final examination; and they would be credited with an identical qualification. Only the mode of tuition was different with carefully constructed study guides and sets of readings replacing regular attendance at lectures, and annual residential courses of three or four days replacing weekly tutorials.

The extramural programme commenced in 1960 with five entry-level units in Education, History and Mathematics. A total of 510 students enrolled in that first year. The range and depth of courses continued to expand over the next thirty years. The original offerings in Humanities, Social Sciences and Education expanded steadily till most first and second year courses could be undertaken extramurally by the mid 1970's. These original faculties were joined by Business Studies in the early 1970's which has since grown to be the largest single extramural faculty, accounting for almost 40% of current extramural enrolment. During the first twenty years of the extramural programme students were unable to complete their degrees totally extramurally. They were forced to convert to individual study - either at Massey University or one of the other New Zealand universities - to complete their third year of undergraduate study. After much debate, both among the New Zealand universities and within the academic community at Massey University, the decision was made in 1978 to offer full degree programmes by extramural tuition. Since that time, virtually all the departments in the major extramural teaching faculties have offered full extramural majors, many offer extramural postgraduate diploma courses as well, and in recent years a small number of extramural master's programmes have begun. The faculties of Science, Technology and Agricultural and Horticultural Sciences offer somewhat smaller extramural programmes restricting their teaching in this mode to the introductory or advanced specialist diploma levels. By 1991 Massey University offered over 550 extramural papers contributing to seventeen degrees, twenty-eight diplomas and six undergraduate certificates.

Advanced Studies for Teachers Unit

In the decades after the last war the school system expanded rapidly to accommodate the baby boom children. Teachers colleges expanded their intakes to meet the demand, and by dint of cutting a few corners, the challenge was met in quantitative if not always qualitative terms. By the late 1950's the state Department of Education recognised that the teaching profession needed progressive retraining and upgrading and that the somewhat ad hoc system of annual refresher courses established during the 1940's could never adequately meet this challenge. In 1962 the Department of Education instituted a Diploma of Teaching which teachers could obtain by completing two-thirds of a university degree, or by completing one-third of a degree plus the equivalent of another third in professional courses. The latter were to be taught by a special division of the Correspondence School.

Development in the early years was steady rather than spectacular. In 1957 in its first year of operation, these correspondence courses for teachers attracted 527 enrollments. By the end of the decade the numbers had reached 1,248. During that first decade courses were written and taught across most of the subjects of the primary school curriculum. In addition, subjects such as "Education in the Junior School" and "Education in the Senior School" sought to broaden the perspective of teachers.

Following its initial decade as part of the Correspondence School, the small unit was given a little more independence and attached to the Wellington Teachers College. It still operated as an arm of the central Department of Wellington, but the newly titled Advanced Studies for Teachers Unit was able to develop its own style of operations.

During the 1970's as Massey University expanded its own extramural offerings for teachers one policy option that found some favour was to amalgamate the two sets of distance education courses. This did not happen however. During the late 1970's the Department of Education decided it was important to preserve an alternative form of retraining for teachers, and one that could be directed more easily to the purposes of the state than could an independent university. As a result an Advanced Diploma of Teaching was introduced, and the ASTU unit was expanded in role and size to take on a broader mandate. The number of courses and students both expanded considerably over the following decade.

In the early 1980's yet another physical shift saw the unit moving from Wellington to Palmerston North. This time the new host institution was the Palmerston North Teachers College, a regional institution with a close relationship with neighbouring Massey University. Again, there was some expectation that the two distance education institutions might achieve some kind of amalgamation. However, this process did not begin for another decade.

Monopoly of Provision

Until quite recently, these four state institutions accounted for virtually all the distance education provided by public education institutions. The Department of Education was directly responsible for the funding of three of those institutions - the Correspondence School, the Technical Correspondence Institute and the Advanced Studies for Teachers Unit - and it was a deliberate policy to concentrate distance teaching in just one institution in each sector. At the university level, it was a deliberate policy of the University Grants Committee to concentrate distance teaching on Massey University, a decision that went unchallenged

until the mid 1980's. Monopoly of provision allowed each institution to grow steadily to a size where it could take advantage of the economies of scale that are possible in distance education. It also encouraged each institution to offer a comprehensive range of courses in the sure knowledge that this was the only chance of education for students from many parts of the country.

Less positively, monopoly of provision restricted involvement in distance education to a very small group of educators, and an even smaller group of policy makers. A common complaint of New Zealand distance educators is that central policy makers do not understand distance education, and that distance education institutions are forced to operate within policies and funding regimes designed for quite different modes of education. The monopoly of provision may also have failed to provide the competitive pressure necessary to encourage rapid innovation, risk taking strategies, and a willingness to adopt fresh approaches. This is certainly a claim that has been made in recent years by central policy makers who favour competition in all aspects of education. In any event, the monopoly of provision has been a singular and powerful influence on the development of distance education in New Zealand. It is also a theme that will recur later in the report.

THE LEGALSTATUS OF DISTANCE EDUCATION

Distance education has developed in New Zealand without the benefit of specific enabling legislation. Until 1988 New Zealand had a single compendium Education Act which governed the conduct of most forms of public education. Subsections within the act set out the provisions for pre-school education, primary schooling, secondary schooling, technical education and teacher education. Little mention was made of distance education within this act. This meant that the Correspondence School and the Technical Correspondence Institute had the same legal status as a conventional school and technical institute respectively. This was not a satisfactory situation as the general provisions of the Education Act clearly did not meet their distinctive missions or structures. For example, both institutions were obliged to operate under the same school terms as conventional institutions, effectively closing operations for at least two months each year. This was, and remains, an inappropriate requirement for an institution such as the Technical Correspondence Institute/Open Polytechnic which has always worked to a system of continuous student enrollment and self-paced study. Likewise, the internal organization and staffing arrangements of each institution were determined by legislation and regulations designed with conventional schools and technical institutes in mind.

Massey University operated under its own act of Parliament. In most respects this act mirrored the legislation applying to its sister universities. But additional legislation made specific mention of Massey's role as a distance education institution. The main thrust of this legislation was to clarify the relationship between the six universities with respect to extramural education and to assist with credit transfer between the two modes.

Over the last few years a series of major administrative reforms has completely transformed the governance of public education in New Zealand. These reforms have been designed to promote greater accountability of educational providers to their communities and consumer groups; to reduce the complexity and sectoral fragmentation of the old system; and to promote more effective management of educational institutions. The last three years have

seen the implementation of these three broad aims. The old Department of Education has been totally restructured with a view to shifting its role away from the provision of educational services to those of policy advice, resourcing and monitoring. Middle range levels of educational governance, such as the twelve regional school boards, and the University Grants Committee have been scrapped. Each educational institution has been required to establish its own board of trustees to be fully responsible for the management and direction of the institution. The initial and critical responsibility of each new board has been to draw up a charter in cooperation with the new Ministry of Education which states the contractual obligations of the board and the state to provide educational services to its particular community.

At the tertiary level the same broad changes have been introduced to the patterns of institutional governance. There has been an additional effort to reduce the sectoral fragmentation between universities, teachers colleges and technical institutes. The Government hopes to achieve this in a number of ways: through competition and contestability among institutions wherever possible; through the creation of a national qualifications agency with power to accredit most tertiary courses; and through the standardisation of tertiary funding across the different types of institution.

This time of national restructuring of education has had its impact on distance education. The Correspondence School and The Open Polytechnic have been set loose from their old dependency relationship with the Department of Education. Each now has its own Board of Trustees which is fully responsible for setting directions for the institutions appointing the Chief Executive Officers, and fulfilling the commitments of their respective charters. Massey University has also had to reconstitute its Board of Trustees and assume some of the responsibilities previously vested in the University Grants Committee. But unlike the Correspondence School and the Open Polytechnic, which look forward to a greater level of autonomy under the new arrangement, universities can anticipate more central direction from the Ministry than they experienced before. The Advanced Studies for Teachers Unit may feel the impact of the reorganization more strongly than any of the other three major providers. Under the new funding and governance arrangements, all tertiary institutions must stand or fall in a competitive environment. Many smaller tertiary institutions such as regional technical institutions and colleges of education, are being driven to amalgamate with large regional institutions. The Palmerston North College of Education which is the institutional host for the Advanced Studies for Teachers Unit, has come to an agreement with Massey University to work towards amalgamation between the two institutions. So, some twenty years after this possibility was first mooted on educational grounds, it is coming about for funding reasons.

The new administrative environment is also intended to encourage diversity and competition among educational providers. The Government has withdrawn its protection of the monopolies the major institutions enjoyed over distance education. Virtually all the New Zealand universities are now involved, albeit still in a small way, with distance education teaching of various kinds. Several of the countries polytechnics have plans to offer their own distance education programmes. Both Massey University and The Open Polytechnic have collaborative relationships with regional institutions to combine the best features of the two modes of delivery. And both institutions are offering their production and administrative infrastructures to assist other institutions to offer courses by distance means.

OVERVIEW OF THE CURRENT SITUATION

In an earlier section it was claimed that the history of distance education is best understood as the history of the service provided by the four main institutional providers: the New Zealand Correspondence School, the Centre for University Extramural Studies at Massey University, the Advanced Studies for Teachers Unit, and The Open Polytechnic of New Zealand. There is a fifth significant provider which should also be mentioned. That is University Extension at the University of Otago. There have been other initiatives besides these five and in the future there may be many more providers, but for the moment at least, a description of the services of these institutions provides a useful framework.

The New Zealand Correspondence School

Aims and Objectives

AX publicly funded education institutions are now required to negotiate a charter with the Government. These charters must indicate the goals and objectives which the institution undertakes to pursue and which the Government undertakes to fund. These goal statements cover the full operation of each institution and therefore only those sections that relate specifically to distance education are mentioned here. They include those sections of the School's formal objectives that have to do with the distance education curriculum, establishing a partnership with the school's community, and meeting the School's commitments to the Maori people under the terms of the Treaty of Waitangi of 1840. The latter is the founding document of New Zealand's nationhood, and represents a commitment to partnership between the indigenous Maori people and the newly arrived European settlers, or Pakeha.

Control, Organization and Management Structure

The Correspondence School is the largest school in New Zealand, and until recently it had a system of internal organization very similar to any other school. This has now been modified to reflect the requirements both of the new education reforms and of distance education as a distinct mode of delivery. The Board of Trustees has been reconstituted to reflect the full range of student and parent interests. This has posed an expensive challenge for the School as the membership of the Board is now distributed throughout New Zealand.

There is a Director and Associate-Director. Reporting directly to them are Principals or Assistant Principals responsible for the divisions of Early Childhood Services, Primary, Special Education, Secondary, and Adult and Open Learning. The Resident Teachers, who are scattered throughout the country, constitute another division. The Special Needs division is further divided into a section which addresses special learning needs of groups of handicapped students, and another which sets up individual programmes for students who require such specialized treatment. There is one further division - the Secondary Schools Group - which manages the study programmes of the 5683 students who are attending regular schools but who are also enrolled for one or more Correspondence School subjects.

In addition to these teaching divisions there are two large divisions providing administrative and technical support. These are the Education Resources Division - which is subdivided into the Planning and Development, Production and Management sections - and the Personnel, Finance and Operations Division which includes Computing Services.

The Correspondence School has a staff of 542 comprising 342 in the Secondary Division, eighty-four in the Primary Division, seventeen in the Pre-school division, ten Resident Teachers, nine staff members supervising Correspondence School units, and ninety-one administrative staff.

One of the most significant organizational developments in recent years has been the implementation of management information systems and student information systems. The School now has an integrated system which links the services of student enrollment, student records, student assignment flow and marks, and materials production and dispatch. The School is currently embarking on a study of its costs in order to better manage the entire production and servicing of distance education.

Funding

Historically, the Correspondence School has been funded directly from the government through an annual allocation determined by the old Department of Education. In fact, until very recently, the Correspondence School was a division of the Department of Education. Under the new reorganized system of educational administration the Correspondence School has been given an independent status and, presumably, independent, formal-based funding. This transition has proved problematic as the Government is reluctant to fund the School at the rate prevailing for conventional education. A series of reviews have endeavored to identify the true costs of distance teaching through the Correspondence School, and the School has been forced to accept some major cuts to its funding, particularly to its Adult and Open Learning enrollments. In the meantime the School is in the process of negotiating an explicit and stable funding basis, probably formula-based, with the Ministry of Education.

The Correspondence School has an annual budget of USE 18 million. School-aged pupils pay no fees. Adults who are citizens or permanent residents pay a fee of USE 52, a figure that represents no more than 10% of the full cost of each course enrollment. The Correspondence School has been gearing itself up to accept off-shore, full cost enrollments and a range of fees have been prepared. For example, full course enrollment for an intermediate school pupil (junior high school) would cost BUS 1825, and a single subject taken at the secondary school level would cost PUS 418 or USE 475 depending on the level.

Geographical Coverage and Enrolment

At mid 1991 the enrollment of the Correspondence School stood at 19,529 comprising 510 early childhood pupils, 1,118 special education, 1049 full-time primary, 1,222 full-time secondary, 6,266 dually enrolled secondary and 9,331 adult part-time students. In terms of ethnic composition, 88.8% were European/Pakeha, 7.3% were Maori, 2.5% were Asian, 1.3% were Polynesian and .7% were other races.

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The Correspondence School has a national and international catchment with students enrolling from towns and cities as well as from the remotest comers of the country. Many of the Special Needs students are hospitalized or house-bound. The School also serves a number of children temporarily overseas with their parents.

Instructional Systems

Print-based correspondence materials have always been the principal teaching medium for the Correspondence School. All units are prepared by Correspondence School staff. Unlike dual mode systems such as Massey University where course development is very much an individual process incorporating regular, even annual, upgrading and revision, the Correspondence School adopts a systematic team approach to course development involving a considerable allocation of time and money. It generally takes two years from the start of the planning process to the completion of materials production. This process will have involved several stages of approval and editing, and will have involved a wide array of subject and technical specialists. Most courses cost over GUS 60,000 to develop through to the printing stage. This investment of time and money means that course revisions must be planned carefully. About 30 of the school's subjects or courses are revised in any year, as part of a planned eight year programme to revise all courses regularly. A special feature of the School's programmes is the interactive approach to teaching which enables teachers to select, adapt and supplement courses according to students' progress and achievement.

Correspondence School courses make use of a relatively large number of small posting. Each unit will require some form of assignment or other response from students. Teaching staff take an active role in pacing their students through a course, providing encouragement and feedback through their marking and correspondence. Many courses will involve kits of learning materials. For example, students studying woodwork or craft courses will receive a supply of wood or other building materials, as well as a set of tools. The School makes heavy use of audio-tapes, both on an individual and a class basis, so many teachers will send a taped response to a student's work as well as their written response. In recent years the School has held a pool of laptop computers which it sends out to students in selected courses. Teleconferencing and direct telephoning of individual students are both used to help support and encourage school pupils studying at a distance. The use of radio has been mentioned already, and this medium helps to keep the Correspondence School in the mind of the public.

The School has always attempted to support its pupils at a regional level. This is done through Resident Teachers offering a visiting service to students in every corner of the country, and also through the ten Correspondence School Units which serve as local study centres for the School. An annual school camp is held at Massey University to give children an opportunity to meet their teachers and their classmates, and to develop some of the social and group skills they cannot learn purely by distance means. Some thirty seminars are held each year in the four main centres for senior secondary students. And over fifty school days are organised throughout the country for students and parents of all ages to participate in group educational, recreational and social activities.

Massey University

Aims and Objectives

The aims and objectives of the Massey University extramural studies programme are incorporated in the university's Interim Charter. This document contains a series of statements about paramount educational purposes, institutional purposes and quality education which make no special mention of distance education. Massey is a dual mode institution, and general statements of institutional purpose apply equally to extramural and internal teaching.

Control, Organizational and Management Structure

Extramural teaching takes place within a multi-layered system of control and management. The outside or top level concerns the relationship between the university and government; the second level concerns the systems of academic governance operating within the university; the third level concerns the control and management of the extramural studies programme within the university; and the fourth level concerns the management systems in operation within the Centre for University Extramural Studies.

As outlined in previous sections, all publicly funded educational institutions are required to have a board of trustees responsible for institutional governance. The Massey University Council fills this role and is responsible for appointing the Chief Executive Officer or Vice-Chancellor. The old University Grants Committee has now been abolished, so the university deals directly with the Ministry of Education on funding and policy matters. A Vice-Chancellors' Committee has taken over some of the vestigial roles of the grants committee, particularly in the areas of inter-university cooperation on curriculum and credit transfer matters.

The university has a system of collegial governance typical of most New Zealand universities. The basic organisational unit is the academic department. Departments are aggregated together into faculties. Each faculty has a dean to manage its affairs, and a faculty board to approve the academic programme. An Academic Board comprising all professorial staff meet regularly to consider the academic proposals of faculty boards, advised by a standing sub-committee comprising the deans of each faculty. The recommendations of the Academic Board then proceed to the University Council for final consideration. Resourcing, staffing and long term planning issues tend to fall outside this process of formal committee deliberation. Instead, such issues are handled by the Chief Executive Officer, with the assistance of Associate Vice-Chancellors, senior registry staff and various advisory committees.

The Board of Extramural Studies is a standing committee of the Academic Board and comprises representatives of each of the university's faculties. It recommends approval of two annual extramural programme, and is responsible for all extramural policy. The Board is chaired by the Director of Extramural Studies. The Director is also responsible for the management of the Centre for University Extramural Studies. The Centre, or CUES, is a registry-type unit dedicated to assisting teaching staff with the organization and servicing of

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their extramural courses, and to assisting extramural students in their dealings with the university.

The Centre has three operating divisions: Teaching Resources, Regional Services and Administrative Services. The Teaching Resources Division integrates the work of a small team of Extramural Teaching Consultants (or course developers), editors, word processors and a materials production coordinator. The Regional Services Division comprises a manager, a campus-based course adviser, and five regionally-based extramural coordinators who provided a variety of support services for students in their home region. And the Administrative Services Division handles the organization of campus-based residential courses, extramural examinations, the provision of special services for students with special needs, the receipting and handling of student assignments, the multiple copying of audio cassettes and computer discs, and the storage and dispatch of teaching materials to students.

Other administrative and support services for the extramural programme tend to be supplied by central university units servicing both the extramural and the internal programmes. Examples of these would include the Registry which handles student enrollment and academic records, the university printery which produces all text-based teaching materials, and the university's own television production unit which produces extramural television as well as video to support internal teaching.

Funding and Costs

The funding of university extramural tuition has recently undergone significant changes. For the past decade or more New Zealand universities have operated on an EFTS-based funding system, but one that has been mediated by a block grant funding mechanism operated by the NZ University Grants Committee. The funding formulas placed subjects in bands depending on their cost of teaching, with humanities, business studies and social sciences in the lowest funding band, the sciences and applied sciences in progressively higher funded bands, and veterinary, medical, dental and pharmacy courses at the highest funded levels. Funding for extramural tuition was calculated at the appropriate band rate, but then discounted by 20%.

In late 1990 the Ministry of Education changed the funding system so that all extramural enrollments generated equivalent funding regardless of the subject being taught, and that this funding be equivalent to the rate payable for the lowest funding band for university tuition. The full implication of this move have yet to be seen. Certainly, the applied science faculties of Technology and Agricultural and Horticultural Sciences will be less enthusiastic about teaching in the extramural mode now that this generates only about half the level of funding that conventional tuition does.

Massey University operates with an annual budget of US\$ 57 million, of which some US\$ 37 million is generated in EFTS-based government funding, US\$ 8 million comes from student fees, US\$ 5 million comes targeted to capital funding and the balance comes from research grants, endowments and other sources. The allocation of funding within the university broadly conforms to the patterns of funding forthcoming from bulk grant income, with the lion's share of it going to teaching departments in salaries and maintenance. The Centre for University Extramural Studies, and the administrative and production services directly attributable to extramural teaching account for some US\$ 1,115,000 of expenditure each year - half of which goes to the salary bill for CUES.

A study of the unit cost involved with extramural teaching conducted in 1988 suggests that the cost of preparing a typical course was about USE 15,000. An estimated course life of five years yielded an amortized annual course production cost of USE 3,000. Further analysis suggested that the fixed costs in offering a course in any year were some USE 15,000. A further cost of USE 115 per course enrollment was incurred as a variable cost. At that time, course fees and EFTS-based bulk funding ensured an allocation of approximately US\$ 450 per course enrollment. This meant that extramural enrollments in any course had to exceed 40 before that course became cost-efficient. Inflation since 1988 will have lifted these costs by at least 20%, and the basis for government bulk funding has changed somewhat. Nevertheless the distribution of broad costs remains valid, as does the identification of the break-even point between funding and costs.

This pattern of costs is common among dual mode distance education institutions: a relatively low average course development cost balanced against somewhat higher annual teaching and servicing costs. This reflects the limited assistance available to individual extramural teachers in the preparation of their course materials, but the personal involvement they retain in every aspect of the teaching and servicing of the course in operation.

Geographical Coverage

Massey University is the main institutional provider of university-level distance education for the whole of New Zealand, so it draws its students from throughout the country. While it was originally intended that extramural tuition should be available for students living beyond the reach of conventional universities, this pattern has changed over the years. Now the majority of extramural students live within easy travelling distance of a metropolitan university but have other commitments which prevent them from studying in the conventional mode.

Instructional Systems

Massey University offers some 500 extramural courses each year. These are offered over the full year, starting with a summer enrollment during January and February, and concluding with final examinations in October and November.

Most courses will have a single academic course controller. That person will be responsible for planning the course, preparing the draft study material, setting and marking all student assignments and the final examination, organizing and teaching at any campus-based residential courses or regional courses, and for responding to communications from students. The course controller will receive assistance from CUES in preparing, wordprocessing and editing draft study material. CUES will also relieve academic staff of much of the organization and communication associated with examinations, residential and regional courses, and the flow of student assignments. But, compared with most single mode distance education institutions, the academic course controller carries very wide responsibility for the operation of the course.

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Most extramural courses are print-based combining two or three study guides with sets of readings reproduced from the literature. These packages of material are prepared through the CUES wordprocessing unit and then printed through the university's own printery. While there are two extramural teaching consultants to offer assistance in this course preparation process, most academics produce their own draft material. While it is difficult to generalize about the instructional design of such a devolved process of course preparation, it can probably be claimed that most academics follow Holmberg's model of "the guided didactic conversation".

This model lends itself well to the dual mode of teaching, and submit their course material to a process of constant revision.

Courses tend to rely heavily on written student assignments. These are submitted according to a schedule of deadlines, and marked by the course controller in most cases. Courses with enrollments greater than fifty - which only account for about a third of the courses - will normally employ part-time markers to assist with this process.

At least half of all extramural courses incorporate a residential component of three or four days on campus in Palmerston North. This provides an opportunity for students to undergo a period of concentrated study with their teacher and classmates, and to be introduced to study media and methods not possible through the use of print. More than half of these residential courses have a compulsory attendance requirement. Over the past decade, staff responsible for the larger enrollment courses have been encouraged to schedule a series of regional weekend courses instead of these campus-based courses.

Audiotapes are used by about a third of all courses. These are generally produced by the course controllers themselves with some technical help from central staff. A much smaller, but growing, number of courses use home-based computers in the extramural teaching, supplying discs to students through the mail. Progress is being made on networking student computers for teaching purposes. Television provides supplementary instruction and support for about ten per cent of all extramural courses, mostly those with larger enrollments.

Massey University has avoided a study centre approach to distance teaching, preferring to support its students from the centre. Exceptions to this rule would include the half dozen departments which employ part time tutors in the regions, the five regional offices which are supplying general study advice and support to extramural students, and two or three joint teaching arrangements entered into between the extramural programme and regional tertiary institutions.

Enrollment

There were 15,391 students enrolled extramurally in 1991. These students enrolled for 26,550 student/paper enrollments, or an average workload of 1.7 papers. This compares with an internal student enrollment of 7,901 students enrolling for 48,140 student/paper enrollments, or an average workload of 6.1 papers.

The extramural enrollments are spread across seven of the university's eight faculties. The faculty of Business Studies has the largest extramural enrollment with 40% of the entire extramural enrollment; Social Sciences, Humanities and Education have large programmes as well with 29%, 13% and 8.5% of the total extramural enrollment respectively; and the

three remaining faculties of Science, Agricultural and Horticultural Sciences and Technology have smaller programmes with 5%, 2% and 1% of extramural enrollment respectively.

No reliable data are available on rates of graduation from Massey University's extramural programme. Most students move-between non-distance and distance education during their university programme, and many transfer enrollment and credit from one New Zealand university to another. Data is available, however, on individual course completion rates. The student withdrawal rate for all extramural courses was about 17% in 1988. This is a very conservative estimate of student wastage, as many distance education students fail to inform the university of their intention to withdraw. If those students who fail to complete (Did Not Complete - DNC) the requirements of the course are added to this dropout tally the rate climbs to 36%. These rates are higher at the introductory 100 level with a withdrawal rate of 19%, and 42% when the DNC students are added to the list. Retention rates tend to improve at the more advanced levels, and third year (300 level) courses have a withdrawal rate of just 14%, rising to 24% when DNC students are added.

Advanced Studies for Teachers Unit

Aims and Objectives

The Palmerston North College of Education, which is the host institution of the Advanced Studies for Teachers Unit, has recently negotiated its charter with the Ministry of Education. In Section 1 of the charter which deals with the mission, objectives and delivery systems, there is no explicit mention of the unit or of distance education. In the second section where the distinctive character of the college is described, mention is made of the distance education programme, and the nationwide commitment of the institution to serving the professional education of teachers.

Control, Organization and Management Structure

The Palmerston North College of Education is a body corporate with its own Council and Principal. The main function of the College is to provide teacher education to primary and secondary school her trainees from the immediate region. Most of the systems and structures of the College are designed to serve these conventional teacher education programmes.

The Advanced Studies for Teachers Unit has a quite separate clientele and mission from the rest of the college, and the organisation and staffing of the unit reflect these distinctions. The Unit has a Director who is accountable to the College Principal. Apart from a small number of clerical staff, the unit comprises about a dozen course developments and teaching staff. Their primary role is to plan and develop distance education courses for teachers; to contract other members of teachers college staff to write distance courses and monitor those contracts; to participate in the teaching of some of the distance courses, and contract other staff to teach the remaining courses; and to ensure that all the administrative and servicing arrangements are in place. The Unit draws on the administrative and clerical services of the College Registry for wordprocessing, student enrollment and printing.

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In organisational terms the Unit falls half way between the dual and the single mode. It is dual mode to the extent that the College of Education offers both a conventional and a distance education programme, many of the administrative staff service both the internal and the distance programme, and some of the coopted course developers and tutors for the distance programme are also heavily involved with internal teaching. But it is single mode to the extent that the Unit has a staff dedicated to the distance education programme, the two diploma courses are not taught in the face-to-face mode within the college, and the Unit has been able to establish many of the systems and procedures of single mode distance education teaching.

The two principal programmes offered by the Unit are the Advanced Diploma of Teaching and the Higher Diploma of Teaching. These were established by the central Department of Education as an alternative route to university study for teachers wishing to continue their professional education. Most student teachers are able to combine their college education with course work towards a BEd or similar qualification at their local university. The Advanced Diploma and the Higher Diploma of Teaching offer teachers a choice of how they wish to proceed with their professional education once they are out in the schools. As a broad generalisation, university courses in teacher education tend to take an analytical approach grounding their study in the social sciences. The Higher and Advanced Diplomas on the other hand tend to focus on school curriculum areas and the professional skills required for teaching and administration.

Each of the six colleges of Education offers courses towards these diplomas, but only Palmerston North College offers them by distance education.

Financing

The Unit operates within an annual budget of some USE 1,300,000. Something under half this amount is taken up with the salaries of unit and allied staff. A smaller fraction is set aside to contract outside staff to prepare course materials or to tutor and mark existing courses. And the remainder is taken up with the normal costs associated with distance education viz. materials preparation, printing, warehousing and dispatch, communication with students, production of alternative media, regional travel and institutional overheads.

Student fees contribute something less than USE 230,000 of this sum, the remainder being generated by EFTS in terms of bulk funding from the Ministry of Education. since 1990 bulk funding of ASTU students has been pegged to the basic extramural rate of funding available to all the distance education institutions. This means that the students attending the Palmerston North College of Education as face-to-face students generate a higher level of bulk funding than do the distance education students. The medium term implications of this disparity of funding is not clear.

Geographical Dislribution

As with the other major national providers of distance education, the ASTU draws its students from throughout the country. The distnbuton of students parallels that of the general population with a slight bias in favour of rural areas.

Instructional Systems

The College has an Academic Programme Board which approves the annual round of course offerings. This board is representative of college staff, teachers' unions and student groups. In planning for new courses the Board must operate within budgetary limits set by the College, and the relatively flexible framework set by the diploma regulations. Once the decision to offer a new course has been made, a course writer or developer is selected. This person may be a member of the Unit staff, a member of the wider College staff, or perhaps someone not associated with the college at all. If the Unit is forced to go outside the institution to find a writer then it will establish a formal commercial contract for the job. The writer will meet with an advisory group for that subject to clarify the objectives of the course, establish the major themes to be covered, and come to some initial decisions about modes of teaching and resources needed. This committee will normally involve one or two members of the Unit staff who will subsequently act as coordinators and editors for the course, some representatives of the particular professional area or curriculum subject in question, and sometimes a representative from the Ministry of Education or appropriate sub-section. The writer will then be given six to twelve months to get the material to camera-ready state. This process will involve regular meetings and consultations with the coordinator, and an acceptance of the guidelines established by the advisory group. The draft material will be edited within the Unit, and then sent out to an independent moderator working on a contract basis.

The course development guidelines are relatively firm but skeletal. That is, there will be clear limits on the numbers of study guides and assignments that will be permitted, on the size of those study guides, on the number of readings that may be attached, and on the level of difficulty and appropriateness of the material. Some guidance will be available on the style of presentation and writers will be expected to identify their instructional objectives throughout the course. However, the instructional design contribution is relatively unobtrusive, and there is scope for course writers to put their personal stamp on a course. The Unit takes the issue of copyright seriously, requiring authors to cede the copyright of all course materials to the Unit, and ensuring that copyright clearance is obtained for all material used.

Most courses have two postings, generally with no more than one or two set text books. These are posted out to students at set points through the year. The typical course will require students to complete four written assignments. These too will be given submission deadlines which correspond with the progress of the course. Most ASTU courses have an examination at the end of the year. The role of the course examiner is decided each year, and where appropriate, contracts are issued both for the writing of the examination paper and the marking of scripts. Until 1990 the examinations were arranged by the School Examinations Section of the old Department of Education. The new Ministry of Education has shed this role to the National Qualification Authority, so the Unit has approached Massey University about providing examination facilities for its courses.

Most Courses are allowed to run for five years without major revision or rewriting. The original course writer may continue with an involvement in the course, perhaps as a tutor or examiner. Just as often, these duties will pass into other hands.

The major supplement to print-based material are face-to-face study groups organized

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in local areas and sometimes even in schools. The Unit employs local tutors to support these groups.

Enrollment

In 1991 there were 1950 students enrolled across about 60 distance education courses offered by the Unit. These were virtually all part time students of the Unit. Around 60% of students were full-time employees of public schools, another 20% were full-time employees of private schools and institutions. Fully 85% of students were women which is a direct reflection of the gender proportions in primary school and pre-school teaching which contributes most of the enrollments for the Unit.

It is difficult for the Unit to calculate graduation numbers. Students commonly combine courses taken by distance through the ASTU with those studied in the conventional mode through one of the other colleges of education. Some two thirds of students enrolling for ASTU courses successfully complete those courses.

The Open Polytechnic of New Zealand

Aims and Objectives

The Open Polytechnic has recently undergone a major re-organization. That re-organization followed a comprehensive review of the objectives, structures and processes of the entire institution of the following objectives or goal. The institution arrived at a mission statement: "to specialise and provide leadership in vocational and continuing education using distance and open learning methods". The institution also committed itself to a set of goals.

Control, Organization and Management

The Polytechnic is a body corporate operating under the Education Act 1989 and its subsequent amendments. The institution is governed by a Council established under the authority of the Education Amendment Act 1990. There is a Chief Executive Officer responsible for managing the administrative and academic affairs of the institution. The Council has set up an Academic Board and three Advisory Committees which report directly to it. These are in relation to three of the larger teaching programmes of the polytechnic: the National Diploma in Accountancy, the National Certificate in Business and the National Certificate in Business Computing.

At the beginning of 1990 The Open Polytechnic (TOPNZ) implemented a new organization structure. This involved a move from a structure which had a Principal, First Deputy, Second Deputy, Registrar and fourteen Heads of teaching departments to a divisional structure with Directors of functions such as Corporate Services, Education Services, Human Resources Development and Delivery, and Deans of the four new faculties of Applied Technology, Commerce, Engineering Technology and General Studies. The faculties are

divided into 50 sections with a staff of over 400 tutors supported by 120 ancillary staff. An early issue for the new structure has been the challenge of establishing an integrated computerized management information system. This has been a major undertaking as the institution moved from a manual system that had operated for many years with individual tutors being responsible for enrollments with no central records being kept.

Financing

The Open Polytechnic is reliant on EFTS-generated bulk funding and student fees for its income. The former amounted to approximately US\$ 12 million and the latter to nearly US\$ 3 million in 1990. Operating costs were around US\$ 15 million with over USE 13.5 million going to salaries.

Changes in tertiary funding policy have affected The Open Polytechnic more than most. Until recently TOPNZ has operated under an annual allocation from the Department of Education which has appeared to disadvantage it in relation to other polytechnics. The move to an EFTS-based funding regime should enable TOPNZ to plan for the future on a more secure and predictable basis than in the past.

Enrolment and Geographical Distribution

The Open Polytechnic accepts enrollments throughout the year, and most courses are self-paced. This means that it is not an easy matter to calculate numbers of students at any given moment. The Ministry of Education has approved funding for 5388 EFTS for 1991. By the end of July the actual EFTS were 4089, with another 600-900 EFTS expected before mid-November. These EFTS translate into approximately 35,000 course enrollments.

As with the other national distance education institutions The Open Polytechnic draws its enrollments from throughout New Zealand. The enrollment patterns tend to follow the general distribution of population with around 19% of students coming from Greater Auckland, 13% from Wellington, 7% from Christchurch, 3.5% from each of Whangarei, Dunedin, Nelson, Napier/Hastings and Tauranga, and the remainder from smaller towns and rural areas. In spite of the fact that there are polytechnics in most regional centres, TOPNZ draws 75 % of its enrollments from urban areas. Half of all TOPNZ students are younger than 30, and 65% are male. At present little information is available on the income levels of students.

The ethnic distribution among TOPNZ students broadly reflects that of New Zealand as a whole. Eighty-two percent of students were European/Pakeha, 6.5 % were Maori, and the remainder were Chinese, Indian, and various Pacific Island nationalities.

Instructional Systems

The Open Polytechnic offers 800 courses towards 333 programmes. Most of these programmes are at trade, technician and professional levels. They range from watchmaking to boilermaking, from hairdressing to accountancy.

Most TOPNZ courses are print-based. In the past, course materials have been developed largely by teaching staff working within broad format and production guidelines. In 1990 an Instructional Design Unit was established, and staff from this unit are developing policy and procedures, and beginning to operate a team approach to course development. The new approach to course development will begin with instructional design, proceed on to course writing, and then undergo an evaluation and editing phase before the physical preparation of camera-ready material. TOPNZ courses tend to have about a dozen study units in each course. Students are sent these units one at a time, and they are generally not sent the next unit until they have completed and returned the attached assignment. These written assignments are an integral feature of the TOPNZ teaching process, and every effort is made to return all assignments within the working week.

In most courses students can enroll at any time during the year, and their rate of progress is entirely self-paced. Examinations tend to occur at set times during the year, and these will tend to influence the pace and timing of study for many students. Continuous enrollment and relatively self-paced study do introduce an important element of flexibility into students' study. But they also mean that it is difficult to identify a cohort of students for any course, and therefore almost impossible to organize any face-to-face tuition for students. Students are encouraged to phone or write to their tutors for guidance on course-related matters, but they seldom get an opportunity to meet other students studying the same course.

The Open Polytechnic is beginning to broaden its approach to distance teaching; firstly by seeking to develop opportunities for students to have some direct contact with each other and with tutorial staff at a regional level; and secondly through the developing use of interactive communications technology. There is enormous scope for The Open Polytechnic to collaborate with regional polytechnics in the servicing of each others' students and courses. Already regional polytechnics make considerable-use of TOPNZ course material. More recently, The Open Polytechnic has been exploring ways in which local polytechnics might provide direct support for its students. One way has been to appoint regional coordinators to advise students, and to coordinate with regional polytechnics in whatever joint servicing arrangements can be developed.

The Open Polytechnic is also planning to utilize a number of the new communications technologies. Computer communications and videoconferencing are two that may be developed in the near future.

University of Otago

Aims and Objectives

University Extension has its own section in Otago University 's Division of Academic Services: Strategic Plan 1990-1992. This is a more detailed statement of objectives than can be found in the University's draft mission statement. Nevertheless, this latter document, makes a specific commitment to "continue[ing] the expansion of the Distance Teaching Programme which meets a need for professional development and community education which cannot be met by internal courses".

Control, Organization and Management

Otago University has a similar system of governance to Massey University. Like Massey University, Otago University is a dual mode institution, teaching both in the conventional and the distance mode. Distance teaching is organized by University Extension, a unit with responsibility for continuing education as well. The head of the Distance Teaching Unit reports to the Director of University Extension who reports to the Assistant Vice-Chancellor, Academic Services Division.

University Extension has a combined staffing entitlement of eighteen staff, most of whom work within the Distance Teaching Unit. The latter has five main sections: network management and operations which is responsible for the teleconferencing operation; network technical development; teaching materials preparation and dispatch; distance credit course enrollments and records; and course operations including print editing and programme design. University Extension draws upon the University Registry for financial control, but manages its own student enrollments and examinations.

Financing

As with other dual mode distance institutions, most of the costs of distance teaching at Otago University is carried by academic teaching departments in terms of staff time. Central servicing costs amount to about BUS 640,000 per year. Half of this amount is taken up with salaries; the other half is expended on the teleconference network and the other administrative, materials production and course servicing functions common to any distance educational operation.

Geographical Distribution and Enrollment

In 1991 there were 960 students enrolling for 1935 paper enrollments. The distance education programme, both regional and national, included eighteen credit programmes and sixty-one papers. Some of these programmes were only available on the Regional Network which comprised thirteen teleconferencing sites in the Otago and Southland regions. These courses tended to be the degree-credit courses in humanities and social sciences. Other courses were available on the National Network which comprised teleconference sites in twenty-five towns and cities throughout New Eland. Many of these course were post-graduate courses in medical, dental or pharmaceutical areas. Others were targeted at specific vocational options such as occupational health practice, theological studies, biotechnology, community nutrition, and fitness management. In addition to the sites shown, the Distance Teaching Unit also teaches through teleconferencing in Hong Kong, Perth, Sydney, Melbourne and Launceston (Tasmania).

Distance Education in Asia and the Pacific

Instructional Systems

Although the teleconference is at the heart of the Otago University distance teaching programme, several other kinds of course material are supplied. The bulk of subject content is usually covered through print and audiotapes. Videotapes, slides, resource hits and other packages of various types are also provided in some courses. Distance students also have access to the library.

Teleconferencing is used to promote tutorial discussions among students. Staff at the Distance Teaching Unit offer guidance and support to academic staff in the use of this medium, and considerable effort is made to make maximum use of the interactive qualities of the medium.

COMMON ISSUES

International Affiliation and Cooperation

All the major providing institutions are members of the Distance Education Association of New Zealand (DEANZ). This is a general membership organization rather than an institutional membership organisation, but all five institutions have given sustained support. The annual conference is the major forum for distance educators in New Zealand and attracted a registration of 250 in 1991.

Most of the institutions are also members of the Australian and South Pacific External Studies Association. ASPESA was, in fact, the parent body of DEANZ, and institutions find it useful to maintain this trans-Tasman link. Several institutions and a number of individuals are also members of the International Council for Distance Education, and half a dozen people or more will attend each international forum of that body.

UNESCO has had a significant interest in distance education and within the region the Asia and Pacific Programme of Educational Innovation for Development has been the focus of most of that work. The Centre for University Extramural Studies at Massey University, The Open Polytechnic Zealand and the Correspondence School have all been institutional members of the National Development Group for UNESCO and APEID for many years. Under the aegis of APEID the distance educational institutions have hosted many international workshops and conferences as well as contributing to numerous workshops and consultancies within the Asian and Pacific region.

The Commonwealth of Learning is a new focus of interest and commitment for New Zealand distance education institutions. Already, senior staff have participated in several workshops and consultancies for the COL.

Individual institutions have affiliation to sectoral distance education groups. For instance, the Correspondence School is a member of the Australian Association of Distance Education Principals.

Research

It is not possible to do justice to the research undertaken into distance education in this monograph. This research tends to fall into three kinds. Firstly there is the institutional research undertaken both systematically and on a more occasional basis. All institutions carry out research on the nature of their student population, on their levels of satisfaction, and on indicators such as student retention. They also tend to research their costs, their options in communications technologies, the effectiveness of their systems for quality assurance, production and delivery. Much of this research is of a high order of sophistication, but of relatively low general interest, with the result that it tends not to be published. Some of this research work is of interest to the distance education profession at large and may be presented as papers at conferences. The proceedings of DEANZ conferences, and ASPESA and ICDL forums would be the major repositories of such research. Thirdly there have been a small number of graduate research theses completed on distance education, and these would be available through the ERIC database and similar systems. Finally, a very few attempts have been made to publish fuller, more reflective studies of various aspects of distance education in New Zealand. One such would be "Campus Beyond the Walls" by J.M.R. Owens, a history of the first twenty-five years of Massey University's extramural programme.

Growth and Expansion

There are a number of developments occurring in New Zealand's larger distance education institutions which are intended to improve the range and quality of the offerings. These include a more explicit focus on instructional design and materials preparation, a new interest in marketing and promoting the available service, and the introduction of integrated management information systems. Most providers are continuing to increase the choices available to students with a broader array at each level, and the development of advanced level and postgraduate distance education courses at both Massey University and The Open Polytechnic.

The existing large providers have a major investment in distance education and retain their effective monopolies on the field. Nevertheless other tertiary educational institutions are expressing interest in distance education and are beginning to mount programmes. Several polytechnics and universities are hoping to offer their specialty subjects to a wider, national audience through distance education. At the moment both The Open Polytechnic and Massey University respectively are negotiating with these institutions to assist them to do so. Likewise, these two institutions are exploring joint teaching partnerships with regional institutions to allow the latter to offer more advanced-level and specialist courses on the foundation of distance education materials.

The Government and a number of social commentators are calling for a freeing up of educational provision through open learning. Most of the distance educational institutions are able to provide at least some of the features of open learning - in particular, open admission, self-paced study, alternative teaching media and flexible learning methods. It remains to be seen how far distance education institutions are able to modularise their offerings to allow a full measure of learner-directedness.

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One significant development is the blurring of the distinction between distance education and conventional education. Several institutions are using a mix of teaching modes, incorporating block courses as well as printed study materials, supplementing their conventional study programmes with distance education study materials, or using communications technology to move into multi-site teaching. This latter development could become more significant in the next decade. Financial pressures may well force some smaller regional institutions to amalgamate with larger institutions. This will encourage the use of communications technologies such as videoconferencing, electronic blackboards, satellite communications, and multi-media applications. These moves will receive a boost from site based industrial and professional training. Already many of the vocational programmes offered by Massey University and The Open Polytechnic are sponsored by professional and trade associations. The recent experience in Australia would suggest that large industrial enterprises will look to distance educational institutions to assist with staff training. Such training is likely to be technology intensive.

Off-shore marketing of distance education has been relatively slow to develop. Confusing signals from government over fee levels, coupled with concerns over issues such as copyright and the establishment of adequate systems to service such enrollments, have all contributed.

Finally, there will almost certainly be greater competition in the field of distance education over the coming decade. Under the new operating environment, the old institutional monopolies have gone, and institutions are free to select the mode that suits them best. This will mean there will be competition from conventional providers venturing into distance education, from commercial vocational colleges now competing for government support for their programmes, from overseas distance education providers, and from each other as the distinctions between the various sectors starts to erode.

Challenges and Problems

The distance education providers consider that New Zealand lacks an explicit policy on distance education and that provision suffers from this lack. This may be a function of the very small number of institutional providers in New Zealand, and their relative invisibility in policy terms. It is true that distance education institutions must operate within policies designed for conventional institutions. This has meant, for instance, that The Open Polytechnic and the Correspondence School have continued to operate within a conventional academic year with lengthy term holidays which cut right across the continuous study programmes that both institutions are committed to; it means that Massey University has no special allocation for expensive communications equipment, but must constantly lobby government to preserve the allocation of capital monies for buildings; it means that the Correspondence School is subject to regular assessments by inspectors and reviewers who know a great deal about conventional schools but not very much about distance education. Current government thinking is to encourage a level playing field for all institutional providers of education, so the prospects of getting targeted policy are not good.

Funding remains problematic for most distance education institutions. The recent decision to peg EFTS-generated funding for distance education students at the lowest cost category will certainly discourage the expansion of distance education into the applied

sciences, medicine, and veterinary studies which would all need the application of more expensive communications technologies, and the provision of laboratory and practical components.

Competition among distance education providers may not be wholly beneficial either. The market for distance education is not infinite in New Zealand, and a proliferation of providers could quickly degrade the economies of scale already achieved by the large providers.

Finally, all the major providers remain the victims as well as the beneficiaries of their histories. They have structures and systems designed thirty, fifty and more years ago. They have large staffs, extensive programmes and huge enrollments. In short they have considerable momentum and a fair measure of inertia. It is not a simple matter to change the culture or structure of a large and complex educational institution. Most of New Zealand's distance education providers are undergoing searching reappraisals of their goals, their systems and their effectiveness. This is leading to important changes in all these elements, but it is not being achieved without considerable effort and some trauma.

New Zealand has been singularly well served by its distance education institutions. They have provided an extraordinarily comprehensive range of study opportunities for students at all levels in the education system. Their quality is high, and their qualifications have always been accorded equal credit to those of conventional institutions. They have been committed to providing access to students from throughout the country and from all conditions of life. And they have provided this service in an effective and cost-efficient way. The serendipitous policy to establish a single monopolistic provider in each sector of education has had a good deal to do with these outcomes. The big challenge for New Zealand's providers of distance education in the future will be to make sure that they continue to serve the needs of a constantly shifting market. This will demand continued attention to quality, a willingness to compete both nationally and internationally, and a tolerance of constant change and development.

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Distance Education in Asia and the Pacific:

PAKISTAN

Shaukat Ali Siddiqui

THE NATIONAL CONTEXT FOR DISTANCE EDUCATION

The Islamic Republic of Pakistan came into existence on August 14, 1947 as a result of the division of former united India into two parts. With its capital in Islamabad, it now has an area of about 7,96,000 sq.km. It is surrounded by India on its East, China and Russia on its North, and Afghanistan and Iran on its West. The Arabian Sea lies on its South.

Education has been recognised as one of the basic rights of the citizens of the country. Education is considered as a provincial subject with policy, planning and coordination as the major responsibilities of the Federal Government.

In spite of the fact that the Government is firmly committed to provide educational facilities to the people without any discrimination of cost, colour or creed, education has never been accorded due priority in the national financial policies. It is only recently that it has been recognised as an investment, but education still ranks low in development plans in terms of allocations and in actual expenditure. The Seventh Five Year Plan (1988-1993) is a good illustration. In this current plan education appears at serial No.9 with 6.6% of the total volume of the plan's provision, as against 35.5% for energy, 17.6% for transport and communication as well as 8.1% for water (7th Plan,p.55). In absolute terms, financial commitment of the Seventh Plan (1988-93) amounts to Rs.23.1 billion (approximately one billion U.S . dollars). The total allocation for education has oscillated between 1.5 % to 2.0% of G.N.P. per annum during the last several years.

In Pakistan, the private sector also plays an important role in meeting the educational needs of the masses, especially prior to the secondary level. It has been estimated that about 10% to 15% of the children enrolled up to the secondary level are receiving education in privately managed educational institutions. The expenditure incurred on them is never reflected in the national figures except to the extent of a few grants-in-aid given on a matching basis.

According to the Economic Survey (1990-91), the estimated population of Pakistan in January, 1991 was 113.78 million (Eco. Survey, Tab. 1.1) making it the ninth most populous country of the world. The rate of population growth in Pakistan during the year 1990-91 is estimated to be around 3.1% per annum. It is anticipated that with the present rate of population growth Pakistan would supersede Bangladesh and Japan in respect of population size by the year 2000 A.D.

A close look at the phenomenon of population dynamics reveals that the rate of growth of population has been constantly increasing, particularly in the last few decades. It was around 1.5% during the period 1901-11, then went up to the extent of 1.8% during the 1930's and 1940's. After 1950, the growth rate further accelerated. Advances in medical technology allowed the crude death rate (CDR) to decline from 18.7% in 1947 to 17% in 1962 and still lower to 10% in 1984, while the CBR (Crude Birth Rate) remained almost constant.

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According to the 1981 Census, 72% of the population in Pakistan lives in rural areas. This is an indication of the fact that Pakistan primarily remains a rural economy with agriculture as its mainstay. Forty-two percent of its total urban population lives in the four major cities, Karachi, Lahore, Faisalabad and Rawalpindi/Islamabad. With the passage of time the process of urbanisation is fast taking place.

The Allama Iqbal Open University has developed most of its courses in Urdu and accordingly provides instruction to its students in Urdu. In the case of some of its Master's level courses where there is some foreign input in the form of material, or consultancy, the medium of instruction is English. Since the University also offers some courses at a very basic level like that of literacy and even at pre-literacy level (like Basic Functional Education Courses for developing skills in illiterate people), the medium of instruction is one of the regional languages like Sindhi, Pushto, or Punjabi. It may, however, be pointed out that in some cases where the material is developed in English the students are also required to answer their question papers in English, while the resource persons/tutors occasionally make use of Urdu as a medium of exchange of ideas and discussion amongst the students.

The Constitution recognizes the pursuit of education as one of the basic rights of all citizens. The Constitution places education in the list of provincial subjects, but the Federal Ministry of Education still plays a major role in policy making, planning, Islamic education, and coordination. In addition, the Federal Government maintains and runs its own educational institutions in cantonments and other federally administered areas of the country. The Federal Ministry of Education further takes care of matters pertaining to foreign assistance, scholarships, and foreign students in Pakistan. The Planning Commission of Pakistan prepares Five Year Plans which provide for the development of various sectors of the economy including education in the country.

Each of the four federating units, known as a Province, is headed by a Governor who is appointed by the President. At the provincial level, the Chief Minister is the executive head of the government. The Provincial Department of Education is headed by the provincial Minister of Education, and these are mainly responsible for the implementation of the Five-Year Plans and policies of the federal government. The broad curriculum outlines for various subjects are also developed by the federal government in consultation with the provincial governments.

The educational administrative structure and the functions are almost identical in all the provinces. Universities are funded by the Federal Government, but function as autonomous bodies under the administrative control of the provinces. There are separate Directors of Education for Colleges and Schools and the number of Directors varies according to the number of divisions in a province. In some provinces, the activities of the Directors of Education are coordinated by a Director of Public Instruction at the provincial level, while in others, the Directors are directly responsible to the provincial Secretaries of Education. Each divisional Director of Education, in turn, has under him the District Education Officer (DEO). The DEO is in charge of school education (primary to secondary) in a district. They are assisted by a number of Deputy DEOs. In view of recent expansion in school education, separate DEOs are being appointed for male and female schools in almost all the districts. Each of the districts is further subdivided into a number of sub-divisions which are supervised by the Sub-divisional Education Officers (SDEOs) and the Assistant Education Officers (AEOs).

In Pakistan, the primary schools (I-V) are administered by the AEOs whereas the

middle (VI-VIII) and High (IX-X) schools are supervised directly by the DEO with the assistance of the Deputy DEO. It may, however, be pointed out here that there are certain variations among the provinces in the administration of school education, but basically the structure tends to remain the same.

The structure of education depicted above pertains to formal (non-distance) education institutions while another parallel system of education under the umbrella of the distance education system in the form of the Allama Iqbal Open University (AIOU) also operates at the federal and the provincial level. The AIOU has a network of thirty regional/sub-regional offices, forty-five model study centres and about 425 Study Centres in all parts of the country.

An effective communication network plays a crucial role in spreading education in general and distance education in particular. The Allama Iqbal Open University, in addition to mailing learning packages to its clientele, also broadcasts and telecasts programmes through the Pakistan Broadcasting and Pakistan Television Corporations. That is why the Government of Pakistan is committed to enhancing the role of mass media, especially radio and television, during the Seventh Five Year Plan, 1988-93. Television today reaches 87% of the population covering 47% of the area while radio covers 96% of the population and about 88% of the area. However, both still operate through a single channel system except in the main towns where radio has a two-channel network. Areas which are outside the television and radio network are either in the difficult mountainous terrain or are in the far flung sparsely populated and border regions of the country, where basic infrastructure of roads and electricity are not available (7th Plan p.295).

The Seventh Five Year Plan, inter-alia, aspires to extend radio and television coverage to the entire population so as to contribute to the vital nation building activities in the fields of agriculture, health, nutrition, family welfare and education. For this purpose, efforts are underway to establish a second television channel mainly for mass education and the enrichment of the formal school system. This channel is likely to become operative from January 1992.

A total of Rs. 2.9 billion (approximately US \$116 billion) has been allocated for the mass media sector during the period 1988-93 (7th Plan, p.297).

Postal services are also crucial for creating general awareness in the masses. Therefore, the Allama Iqbal Open University (AIOU) is fully utilising these services as well in taking education to the target population through the despatch of learning packages. The estimated number of post offices in the country as of March, 1991 was 13,573 with 1,457 in urban and 12,116 in rural areas (Economic Survey, 1990-91, Tab. 6.5). The Seventh Five Year Plan aims to open 1,000 new post offices and introduce Air Express (AIREX) and Urgent Mail Services (UMS) in about fifty towns by June 1993 for promoting the cause of postal services in the country (7th Plan, pp.233-4).

Telephones are rarely made use of as a means of contact amongst the learners, course coordinator, tutors and others in the AIOU system of distance education. This is because the facility is limited to only a fraction of the population in urban areas. Even in these areas, the cost of operation is so high that budgetary provisions do not allow its wide-scale use in the distance education system. At present, there are about one million telephones, which are expected to be increased to 1.3 million by 1993. This would increase the availability of telephones from 6.70 to 11 telephones per 1,000 persons. Similarly, the number of Public Call Offices is also going to be increased from 2,917 in 1987-88 to 4,525 by 1992-93. This

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may facilitate the process of distance education in the future. About 260 million rupees (Approximate \$10.8 million) have been allocated for extension of telephone facilities during the period 1988-93 (7th Plan, p.233) which will have an impact on the expansion of distance education facilities. Since its creation in 1947, Pakistan has faced several acute problems in the field of education at all levels from literacy to higher education. The state of affairs at primary level is very closely linked to the low literacy level (about 30%) in the country. In spite of repeated claims for universalisation of primary education, primary education facilities are not available to about 70% of school age children. Out of the children enrolled in primary schools, only 50% complete their primary education, while the remaining 50% drop out and lapse back to illiteracy. This deplorable plight at primary level may be ascribed to the inefficient and over-loaded system of educational management and the supervision of the primary schools, particularly those situated in the far flung rural areas of the country. Because of traditional cultural values, participation of females at primary and secondary level is extremely low, thus restricting their base for higher education. As compared with 85% of the boys of the relevant age-cohort, only 55% of girls of the same age group are enrolled in primary schools. This is because in some regions parents do not allow their daughters to go to schools. This has seriously hampered the spread of education within the female population of the country.

Financial constraints have been another major problem. Educational needs of the rapidly increasing population in the country require significant financial in-puts every year, to maintain the status-quo. This is beyond the capacity of the country to meet the educational needs of the people through the formal system of education.

The above mentioned factors compelled Pakistan to explore alternative methods and strategies to provide education to its people. Distance education through correspondence, radio, T.V., tutorial sessions and other innovative practices was considered a possible solution to the problem of expanding education among the masses in the shortest possible time.

In response to the educational problems faced by the country, the Allama Iqbal Open University (AIOU), the then People's Open University, was set up in May 1974 under an Act of the National Assembly and it started its functioning as an independent entity in June, 1974. The AIOU (the then POU) was given the mandate to provide educational facilities to the masses of people in the manner it might deem fit. The earliest course developed and launched by the University was the Primary Teachers' Orientation Course (PTOC) which was offered for the in-service training of primary level teachers in the country.

The use of media for entertainment along with some educational purposes dates back to the introduction of radio in the late forties and to that of television in the mid-sixties in the country. The use of media in Pakistan for educational purposes is associated with the inception of the AIOU in 1974.

The AIOU set up its Institute of Educational Technology (ET) in 1974 with the major objective of providing audio visual inputs into its distance education programmes at different levels.

At first, the radio and television programmes of AIOU were produced under extremely difficult circumstances. The radio studio was a makeshift arrangement in one of the corners of a lecture hall of the University. For television programmes, shooting scripts were developed at the University and then passed on for the production of programmes at

the studios of the Pakistan Television Corporation. In this way the university faced a number of difficulties in ensuring that the production of media programmes was in the manner best suited to the emerging requirements of the University.

In August 1983, a new building with Radio and T.V. studios was constructed to strengthen the media support in the Institute of Educational Technology. Departments of Engineering, Designing and Production were created in the I.E.T. to facilitate the effective production of audio-visual materials which promoted and supported the distance teaching based courses of the University. The materials produced include radio and television programmes which were transmitted on the national broadcasting networks, and non-broadcast media used for small group interaction and individual study.

Under assistance from the UNDP and the ODA, the IET was provided with the latest equipment to strengthen its production facilities for television and radio programmes. The UNDP also provided substantial consultancy services for the actual installation of the equipment and for the orientation of both the engineering and production staff of the IET at the AIOU campus. In addition, all production staff and senior engineering and design staff were also provided with opportunities of extensive overseas training.

These developments in programme production marked the turning point in the use of media in the distance education system of the University. The professional quality of AIOU programmes as a result of these inputs, has improved, especially in the case of television. Many of the programmes not only provide instruction to AIOU students, but also prove to be quite attractive and informative for the general public, as well as for students of other institutions. The number of radio and television programmes broadcast by the AIOU increased from 13 each in 1975-76 to 234 and 53 respectively by Spring, 1991.

It may, however, be pointed out here that the relative increase and decrease in the number of radio and television programmes is closely linked with the nature of the courses launched in a particular year and the number of clientele enrolled in them, along with the availability of necessary funds for this purpose.

The Allama Iqbal Open University was wholly funded by the Government of Pakistan during its initial period. Later on, it had to generate its own resources to meet its growing financial needs which could not be met through the grants received from the Federal Government. The details of the sources and forms of financial support for the University are given later.

Ever since its establishment in 1974, the AIOU has generally witnessed a continuous upward trend in terms of enrollment, number of courses, programmes offered as well as the number of radio and television programmes. Since it is supposed to provide a second chance for education to those who, for one reason or the other, could not receive education in the formal system, the public response to different academic and professional programmes has been highly enthusiastic. The yearly profile of overall admissions and the number of courses, as given below, is a clear indication of the development trend and the bright future of distance education in Pakistan.

TABLE 1: Course Enrollment

YEAR	1975-76	1980-81	1985-86	1988-89	1989-90
Course Enrollment	976	43,904	119,905	190,446	235,259

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TABLE 2: Number of Courses Offered

YEAR	1975-76	1980-81	1985-86	1988-89	1989-90
No. of Courses Offered	5	44	114	172	204

THE LEGAL STATUS OF DISTANCE EDUCATION

The Education Policy, 1972-80, was the first official document to put forth the idea of an open learning system through distance education and hence it may be called the first official and legal document referring to this innovative approach for meeting the educational needs of the mass population. To quote from the Policy,

Open Universities are being used in several countries to provide education and training to people who cannot leave their homes and jobs for full time studies. A People's Open University will, therefore, be established to provide part-time educational facilities through correspondence courses, tutorials, seminars, workshops, laboratories, television, radio broadcasts and other mass communication media. To begin with the University will provide facilities in fields and subjects of immediate importance such as the training of elementary teachers and members of the National Literacy Corps and the promotion of rural improvement and community development activities (Section 7.10).

In pursuance of the provisions of the Education Policy 1972-80, the National Assembly passed the enabling Act No. XXXIX in May, 1974 and thus the Allama Iqbal Open University (then named People's Open University) came into existence in June, 1974 (AIOU Triennial Report, 1979-82, p.5). Quite a few amendments have been made in this enabling Act in order to accommodate the changing needs of the University pertaining to its management and administration.

It may also be pointed out that the Allama Iqbal Open University is one of the three Universities situated in the Federal capital of the country and that the President of the Islamic Republic of Pakistan is the ex-officio Chancellor of the University.

The legal status of the Allama Iqbal Open University as an examining and accrediting institution was further established in 1982 when the University Grants Commission ruled that the Degrees, Diplomas, and Certificates awarded by the AIOU would be treated on a par with the Degrees, Diplomas, and Certificates awarded by other Boards and Universities of the country.

Ever since then the policies and plans formulated by the Government of Pakistan have invariably extended acknowledgement to the AIOU as an advanced institution of learning. Continued government and international assistance has enabled AIOU to expand its programmes to several crucial areas of national development.

OVERVIEW OF CURRENT SITUATION

Aims and Objectives of Distance Education

The major aims and objectives of distance education in Pakistan, represented by the functions

of the Allama Iqbal Open University, is put forth in its enabling Act (AIOU Act, 1974 PP.3-5).

- a) to provide facilities to people who cannot leave their homes and jobs in such manner as It may determine;
 - b) to provide such facilities to the masses for their educational uplift as it may determine;
 - c) to provide facilities for the training of teachers in such manner as it may determine;
 - d) to provide for instruction in such branches of learning, technology or vocations as it may deem fit and to make provision for research and for the advancement and dissemination of knowledge in such manner as it may determine;
 - e) to prescribe courses of studies to be conducted by it;
 - f) to hold examinations and to award and confer degrees, diplomas, certificates and other academic distinctions to and on persons who have been admitted to and have passed its examinations under the prescribed conditions;
 - g) to confer in the manner prescribed honorary degrees or other distinctions on persons approved for the purpose;
 - h) to provide for such instruction for persons not being students of the University as it may determine, and to grant certificates and diplomas to such persons;
 - i) to confer degrees on persons who have carried on independent research under prescribed conditions;
 - j) to accept the examinations passed by students of the University at other universities and places of learning as equivalent to such examinations of the University as it may determine;
 - k) to co-operate with other universities and other authorities in such manner and for such purposes as it may determine;
 - l) to institute Professorships, Senior Instructorships, Associate Professorships, Instructorships, Assistant Professorships, Lecturerships, Counsellorships and any other posts and to appoint persons thereto;
 - m) to create posts for teaching, research, extension services, administration and other related purposes and to appoint persons thereto;
 - n) to recognize as University Teachers such persons as it may deem fit;
 - o) to institute and award fellowships, scholarships, exhibitions, bursaries, medals and prizes under prescribed conditions;
 - p) to establish teaching departments, faculties, laboratories, workshops, audience level regional centres and other centres of learning for the development of teaching and research and educational technology and to make such arrangements for their maintenance, management and administration as it may determine;
 - q) to supervise and control the discipline of the students of the University and to promote the extra-curricular and recreational activities of such students, and to make arrangements for promoting their conduct, health and general welfare;
 - r) to demand and receive such fees and other charges as it may determine;
 - s) to make provision for research and development of educational technology and advisory services and With these objects to enter into arrangements With other institutions or With public bodies under prescribed conditions;
 - t) to provide for the making of films and cassettes and other audio visual material and enter into arrangements with Broadcasting Corporation of Pakistan, the Television Corporation of Pakistan and such other organisations as it may deem fit;
 - u) to enter into, carry out, vary or cancel contracts;
 - v) to receive and manage property transferred and grants, bequests, trusts, gifts, donations, endowments and other contributions made to the University and to invest and fund representing such property, grants, bequests, trusts, gifts, donations, endowments or contributions and to convert one kind of property into another, in such manner as it may deem fit;
 - w) to provide for the printing and publication of courses and teaching material and other works;
- and
- x) to do all such other acts and things, whether incidental to the powers aforesaid or not, as may be requisite in order to further the objects of the University as a centre of education, learning and research .

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Control, Organisation and Management Structure of Distance Education

In Pakistan, the AIOU is the only national level institution of distance education funded by the Federal Government. The Governing bodies controlling the AIOU are:

- a. Chancellor: President of Pakistan is the ex-officio Chancellor.
- b. Pro-Chancellor: Federal Minister for Education is the ex-officio Pro-Chancellor.
- c. vice Chancellor: He/She is appointed by the Chancellor of the AIOU for a term of four years.
- d. The Executive Council: The Executive Council is the supreme executive body of the AIOU and consists of the following members:
 1. The vice Chancellor who is also its Chairman.
 2. One member of the National Assembly to be nominated by its Speaker.
 3. The Chief Justice of Pakistan or his nominee.
 4. The Federal Secretary of Education.
 5. One nominee of the University Grants Commission.
 6. One Dean as Chancellor's nominee on vice Chancellor's recommendation.
 7. One elected representative each from amongst the Professors, Associate Professors, Assistant Professors and Lecturers.
 8. Three persons of eminence as Chancellor's nominees.
 9. The Managing Director of the Pak. Television Corporation.
 10. The Director General of the Pak. Broadcasting Corporation.
 11. One 'Alim^a (Religious Leader) as Chancellor's nominee.
 12. One woman as Chancellor's nominee.

Members, other than the ex-officio, hold office for three years and the quorum for a meeting of the Executive Council is one-third of the total membership (University Calendar, 1988, pp.23-24).

Being the chief executive body of the University, the Executive Council exercises general supervision over the affairs and management of the property of the University.

In addition to that, the Executive Council is the appointing authority of university teachers and other officers on the recommendations of the Selection Board. It also appoints Professors Emeritus as per provisions in the AIOU Statutes.

The Executive Council is also the supreme body in all financial, academic and other matters of the University.

e. The Academic Council.

The Academic Council consists of the following:

1. The vice Chancellor who is its Chairman.
 2. Four members of the Executive Council to be elected by the Executive Council.
 3. The Deans, the University Professors, Senior Instructors and Professors Emeritus.
 4. The Chairmen of the Departments and Directors of Institutes.
 5. Five Representatives of University Teachers.
 6. Two registered graduates.
 7. Three persons of ordinance in the Arts, Sciences and other professions to be nominated by the Pro Chancellor.
 8. The Registrar, the Treasurer, the Controller of Examination and the Librarian.
- (University Calendar, 1988 p.27).

The Academic Council is the highest academic body of the University and has the power to lay down proper standards of instruction, research, examination and to promote the academic life of the University.

The Academic Council also has the power to advise the Executive Council on all academic matters and to regulate the conduct of teaching, research and examination and other relevant issues. (University Calendar, 1988, pp.107-8).

f. Finance Committee.

The Finance Committee consists of the following:

1. The vice Chancellor who is its Chairman.
2. Two persons to be nominated by the Executive Council from amongst its members.
3. Two members of the Academic Council to be appointed by the Academic Council.
4. One nominee each of the Pro Chancellor and the Ministry of Finance.
5. The Registrar.

The terms of office of members other than the ex-officio members is 3 years and the quorum for a meeting is just three.

The Finance Committee considers the annual statement of accounts and reviews the financial position of the university.

The Finance Committee also advises the Executive Council on all matters relevant to physical planning, finance, investment and accounts of the University. (University Calendar, 1988, p. 124).

In addition to the above, the University also has other statutory bodies such as the Selection Board, the Academic Planning and Development Committee, Research and Technology Committee, the Faculty Boards and the Committees of Courses which have their specific functions under the provisions of the University Act.

The AIOU functions with the vice Chancellor as its academic and executive head. In the AIOU there are three Faculties each headed by a Dean responsible to the vice Chancellor. The Dean looks after the functioning of the academic departments working within the Faculty. Each department has a Committee of Courses through which it initiates its programmes / courses to gain approval of the competent bodies.

The AIOU has several servicing departments which deal with admissions, examinations, mailing of materials, printing, and the regional network.

The AIOU functions in close collaboration with other non-distance education institutions of the country. It utilises the services of staff working in formal education institutions, and makes use of the premises and other physical facilities of selected institutions for providing face to face contact sessions at more than 400 Study Centres. These arrangements of mutual collaboration are facilitated by the regional network of the AIOU, the staff and the heads of concerned institutions of formal education.

Financing Distance Education

The main source of funding for the University are the grants from the government. Although, AIOU is at the top of the list of the universities in Pakistan with respect to

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generating income through its own resources, the University has to depend on the government grants and particularly so with respect to its developmental projects. Increases have been observed in the income of the University from other resources with student fees as a major component. The data show that more than 45% of recurring resources are generated through fees. The grant-in-aid on the development side does not show an increasing trend. On the other hand the funds received by the University do not come according to its planned developments. Following are the statistics on the finances of the University for the years 1984-85 to 1986-87 and 1989-90.

TABLE 3: Income for the Years 1984-85 TO 1987-88 & 1989-90
(Rs.in million. One rupee is equal to .04 US Dollars approximately)

Recurring	1984-85	1985-86	1986-87	1989-90
Grant in aid.	19.680	24.000	28.600	34.310
Other income (Including Fee)	11.215	12.084	12.758	30.750
Development. Grant-in-Aid.	11.100	7.000	11.200	5.500
Total	41.995	43.084	52.558	70.560

(Based on vice Chancellor's Report,1989, and AIOU Budget 1989-90).

The expenditures of 1987-88 are about double its recurring expenditures of 1983-84 which is Rs.23.984 million (V.C's Report, 1985 p.20). The year 1989-90 has registered a total recurring expenditure of Rs.73.204 million which is about 1.522 times of the figure for 1987-88 (AIOU Budget, 1989-90).

Further distribution of expenditure shows that the major expenses are salaries to full-time staff, and other payments to full-time staff; expenditure on, the development of course material, charges for external facilities like radio/T. V. programme charges, remunerations, TA/DA to part-time staff and rentals (V.C's Report, 1989).

As already mentioned, the AIOU gets most of its foreign aid from the ODA, while other foreign aid giving agencies include UNESCO, UNICEF, UNDP, Governments of Saudi Arabia, UAE, Norway and the Netherlands.

The total budget of the AIOU was Rs. 80.00 million approximately, both Developmental and Non-Developmental) for 1989-90. This is only a very minor fraction of the budgetary provision (Rs.32000.00 million approximately both Developmental and Non-Developmental) for formal or non-distance education. It is, therefore, better to compare the two systems in terms of cost per student at the intermediate and BA levels because of the non-comparability of different levels of the two systems and above all, the non-availability of the relevant data.

A review of the AIOU programmes jointly conducted by the Government of Pakistan and the ODA in March, 1983 concluded that the AIOU could produce graduates at a much cheaper rate than conventional universities in Pakistan provided that enrollments were sufficiently higher. A later analysis also confirmed the above conclusion and established that with an enrollment of 50,000 the average student costs are approximately 30% of the cost of producing a graduate at a conventional university.

The cost per student calculated on the basis of extrapolated figures for 1987-88 (with

minor statistical adjustments) gives the following picture.

TABLE 4: A Comparison of Distance and Non-distance Students (In Rupees)

Level	AIOU Distance System	Non-Distance Conventional System	Difference
1. Intermediate	3,930	5,688	44.72 %
2. B.A.	5,240	7,250	38.35 %

Source: AIOU The First Ten Years, pp. 51-54.

As for the budgetary provisions for teacher education at the primary level in terms of cost-effectiveness, it has been estimated that the cost of producing a PTC (Primary Teacher's Certificate) holder is almost half of the cost incurred for producing a teacher of the same level through the formal/non-distance education system.

Geographical Coverage of the Provision of Distance Education

As a national level institution of distance education, AIOU serves the whole of Pakistan. It has nearly thirty regional / sub-regional offices throughout the country, each headed by a Regional/Assistant Regional Director. At the nucleus, the Director Regional Services coordinates activities of the regions. Through this network, AIOU's outreach system reaches target learners even in farflung areas of the country. Collaboration of other agencies in the field is also ensured through this regional network of the AIOU. The AIOU also meets educational needs of some overseas Pakistani students living in the Middle East.

Instructional System

Since the AIOU is an institution of distance and non-formal education, there are no on-campus regular classes for students. Its students are rather spread throughout the country and there is no immediate face-to-face contact between the teacher and the taught. The AIOU has therefore designed varied delivery methods and thus combines in its distance education system several instructional strategies including the following:

1. Self-Study Method in which the learner studies the self instructional material sent to him/her through postal services.
2. Radio Programmes which are based on text sent to the learners and hence supplement the same, usually in the form of expert talk, discussion etc.
3. Television Programmes which are mainly designed to teach technical skills to the learners.
4. Tutorials which provide an opportunity for face to face contact/interaction amongst the learners and the instructor/tutor at places known as Study Centres. In certain courses they form a compulsory component of the course.

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5. Workshops as used in teacher education courses, and arrangements are also made for teaching practice of pupil-teachers so as to provide them exposure to actual teaching processes before they join teaching as a profession.

6. Non-Broadcast Media such as Audio-Video Cassettes are placed in model Study Centres for use by learners as and when needed. 'Flip Charts Plus Cassettes are used as main strategy for imparting instruction to illiterate students who receive orientational skills in various fields of immediate interest.

7. Telephonic Contacts are mainly used by individual learners in getting certain points/concepts clarified from their tutors/course coordinator and Chairpersons of the concerned departments.

The AIOU may make use of one or more of the above methods of instruction in different combinations, depending upon the nature and levels of courses.

As already explained, Urdu is the main medium of instruction of AIOU programmes, but under varied situations, the AIOU also makes use of English, and regional dialects as languages of instruction. The major factors relevant in this regard are level of the course, age and socio-economic background and the level of literacy of the target clientele.

Enrollment in Distance Education

In the AIOU system of distance education, a student may enroll in two credit courses in one semester which may comprise two full credit courses or one full credit and two half credit courses or four half credit courses. Depending upon the courses (full credit or half credit) a student enrolls in, his/her name may be counted either twice, or thrice or four times. Therefore, for the purposes of computing ratios in the next part of this section, we would be assuming the actual number of students to be one-half of these figures.

TABLE 5: Enrollment by Course

Course Level / Year	1988-89	1989-90
1. Functional (non-credit)	4,240	2,522
2. Intermediate (FA)	63,046	73,775
3. Bachelor of Arts (BA)	48,835	46,029
4. Post-Graduate.	6,311	5,915
5. Teacher Education	45,722	94,552
6. Foundation Courses/Projects.	22,292	12,466
Total	190,446	235,259

As far as the nature of enrollment (whether full-time or part-time) is concerned, it may be pointed out that the Allama Iqbal Open University is a national level institution of distance and non-formal education. Because of the very nature of the university and the instructional strategy it has adopted, it meets the educational needs of a large spectrum of

students (bound by neither age, area, nor gender), who cannot afford to be full time students. They comprise housewives, employees, shop-keepers, and similar other segments of the population who, for one reason or the other, are unable to leave their homes or places of duty to receive education. Enrollment in AIOU courses is on a part-time basis only. There is no provision in the AIOU system to enroll students on a full-time basis.

Study of the enrollment ratio in distance and non-distance education systems is quite an interesting aspect of their comparative analysis. By virtue of its media-based technique of distance education, the AIOU is in a position to cater to hundreds of thousands of students coming from throughout the country. On the other hand, the non-distance education system in view of its inherent requirement of face to face contact can meet the educational needs of a limited number of students. The following table indicates the enrollment at comparable levels in distance as well as non-distance education systems of the country in two successive academic years, 1988-89 and 1989-90. Figures of enrollment have been rounded.

TABLE 6: Enrollment Comparison of Distance and Non-distance Education

	AIOU SYSTEM		NON-DISTANCE SYSTEM		RATIO	
	88-89/89-90		88-89/89-90 (000) (000)		88-89	89-90
Intermediate (FA)	31,500	37,000	316	340	1:10	1:9.2
Bachelor of Arts (BA)	24,500	23,000	157	166	1:6.4	1:7.2

Source: Vital Statistics of AIOU and the Economic Survey, 1990-91.

The above table indicates that in 1988-89 for every student enrolled at Intermediate level in the AIOU, there were ten students enrolled at that level in non-distance education institutions. The same ratio in 1989-90 was 1:9.2. In 1989-90, at the BA level the enrollment ratio in distance and non-distance education system was 1:6.4, which increased to 1:7.2 in 1989-90.

The yearly number of BA graduates is indicated below:

TABLE 7: Number of Distance Education Graduates Per Year

1982	1983	1984	1985	1986	1987	1988	1989	1990
117	151	121	780	840	1122	962	737	1561

(Based on office records)

The accumulated number of graduates as of 1990 was 6,391.

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International Affiliation and Cooperation

The Allama Iqbal Open University has extensive affiliations and it functions in close collaboration with several other international and foreign distance and non-distance education institutions. Some of these international linkages/affiliations are briefly described below (V. C's Report, 1989, pp.317-323).

The Allama Iqbal Open University which was initially supported by and established its first linkage programme with the United Kingdom Open University (UKOU) in 1976. This extremely fruitful linkage gave the AIOU an impetus in strengthening its distance education strategies. The UKOU has been helpful to the AIOU in areas of staff development, consultancy services, and provision of equipment to the university with different education facilities. This collaboration still continues and the UKOU has deputed a British Project Team which is housed in the AIOU for providing instant technical assistance to the University in different aspects of distance education.

The AIOU is collaborating with the University of South Carolina, USA in developing and launching its courses on Adult Literacy and its Basic Functional Education Programme. The Sukhothai Thammathirat Open University (STOU), Bangkok has established a Regional Resource Centre for the benefit of the Open Universities in Asia and the Pacific. The Allama Iqbal Open University is benefiting from the technical assistance from the Regional Resource Centre at the STOU.

Like the AIOU, the Open University of Sri Lanka is also a member of the AAOU. The Secretary, the Ministry of Education, the Government of Sri Lanka and the Technical Advisers to UNDP/UNESCO have held several meetings with the vice Chancellor, AIOU in order to identify the areas of mutual collaboration.

The inaugural meeting and Conference on the Asian Association of Open Universities (AAOU) was held on 13.11.1987 at Bangkok. Here, Pakistan was represented by the Registrar AIOU. The seven founding members were India, Indonesia, Japan, Republic of Korea, Sri Lanka, Thailand and Pakistan. It was agreed that the participants would give their consent by signing the constitution and confirm their membership after getting permission from their respective governments. After observing necessary formalities, the AIOU has become a full-fledged member of the AAOU.

Like the AIOU, the Korean Air and Correspondence University is also a founding member of the Asian Association of Open Universities. The AIOU has planned to establish close linkages with this University.

The AIOU is also linked with Open Universities in the South Asian Association for Regional Cooperation (SAARC) countries. Under a proposal initiated by the AIOU a Round Table Conference of Open Universities in South Asian countries was held in and hosted by the AIOU in 1989 in collaboration with the A.D.B.

The Allama Iqbal Open University is also a member of the International Council of Distance Education (ICDE). As a member of this council the AIOU receives a lot of material on distance education and technical assistance in several aspects of distance education. The AIOU regularly participates in the meetings of the ICDE.

Growth and Expansion

The Government of Pakistan acknowledges the role of the AIOU in providing general and professional education to a large variety of target clientele. Under assistance from the Government and quite a good number of international/foreign agencies, the AIOU has planned a number of activities for the future growth and expansion of distance education in the country. The areas in which the AIOU is planning to bring further growth include:

- a. Basic functional education with assistance from the ODA.
- b. Women education with assistance from the Government of the Netherlands.
- c. Teacher training at different levels with assistance from the World Bank, ADB and the Royal Norwegian Government through NORAD.
- d. In addition to the above the University is also expanding its academic programmes so as to include M.Phil and Ph.D. programmes in different disciplines.
- e. The President of Pakistan who is the Chancellor of the University has advocated establishing a second Channel of Pakistan Television to be used especially for distance education purposes. It is hoped that this additional input of media would go a long way in ensuring the expansion of distance education in the country for the benefit of the masses.

Problems and Issues

Considered in the context of problems faced by distance learners and limitations of this system, the effectiveness and the quality of distance education is quite acceptable. since there is always room for improvement, it is anticipated that, as the AIOU overcomes its major problems, it can further enhance its effectiveness and quality of instruction.

Since the establishment of the Allama Iqbal Open University it has passed through several developmental stages. This has led to the identification of several factors which have so far hindered the popularisation of distance education in Pakistan. These factors are briefly described as follow:

1. Low level of literacy. since the minimum literacy level of the clientele provides a basis for continuing education even in the absence of guidance by immediately available teachers, the distance system can more successfully serve the literate clientele. Unfortunately the rate of literacy in Pakistan is around 30%. This low level of literacy, restricts the possibility of fast expansion of this innovative system in the country.
2. Skeptical attitude of the people. Most of the people tend to be skeptical about the credibility of the certificates and degrees awarded by the AIOU. No

doubt, there will be a gradual change in the attitude of the educated people towards this innovative system, but sometimes this negative attitude of people results in hampering efforts towards the promotion of distance education in Pakistan.

3. Difficult logistics of face to face contact. It is admitted that face to face contact plays an important role in making the learning process effective. Unfortunately, by virtue of the inherent characteristics of the distance education system the provision of face to face contact between the teachers and the students tends to be minimised, creating difficulties of instant communication.

4. Problem of evaluating the performance of students from backward and developed areas. While there is no doubt that the tutors and examiners are supposed to maintain a uniform standard of evaluation of students' achievement, it is also imperative for them to take serious note of the unique conditions and backgrounds of various groups of clientele and give some allowance to students coming from under-privileged classes or areas of the country. But because of the uniformity of the curricula and instructional materials it becomes difficult for the evaluators to use two standards of evaluation. This state of affairs creates a problem for the evaluators in the distance education system.

5. High capital cost at initial stage. since most of the programmes of distance education are media based, the developmental costs of this approach turn out to be quite high at the initial stage. This new approach becomes quite expensive and time consuming at the initial stages for developing countries like Pakistan. These constraints do not allow the necessary gestation period which is crucial to make the new approach cost-effective and widely acceptable.

6. Training of distance education personnel. Most of the personnel working in the distance education system of the AIOU have been drawn from the formal education institutions and hence they lack the necessary aptitude to meet the specific demands of the distance education system with regard to curriculum development, material production, and evaluation. In order to make the personnel responsive to the system it is imperative to provide them necessary training in this new system. Unless the personnel working in the system are provided necessary training in different aspects of distance education, the system will continue to suffer from conflicting attitudes.

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APPENDIX Research Activities in Distance Education

Details of research projects completed so far:

The earliest research work on different aspects of distance education was done under the auspices of the former Institute of Education and Research of the AIOU. During a short span of time (1979 to 1984) it did extensive research work and published about 40 reports on different topics / aspects of the AIOU, mainly covering the following:

- a. Evaluation of different courses.
- b. Evaluation of radio/television programmes.
- c. Evaluation of group training workshops at different levels.
- d. Study Reports of Integrated Functional Education Project

In 1984, the AIOU set up a Research and Evaluation Centre which is engaged in undertaking different activities in different aspects of distance education. The list of research activities completed by the Research and Evaluation Centre so far is given as under:

S.No.	Title of Publication/Document Place &	Date Pages of Publication	Pages
REC Enrolment & Examination results S.1		Research & Statistical Centre AIOU Dec.1984.	117
REC Effectiveness of Media:Radio and S.2 Television in Distance Education System.		-do-Nov. 1984	155
REC Statistical Handbook of Allama S.3 Iqbal Open University (1975-84)		-do-	36
REC Pricing of Admission Form and S.4 its effect on Enrolment in AIOU.		-do-March 1985	5
REC Statistical Profile of AIOU S.5 (Oct.1982-April 1984).		-do-May 1985	40
REC Annual Report of 1982-83 S.6		-do-June 1985	52
REC Annual Report of 1983-84 S.7		-do-June 1985	57

REC Annual Report of 1984-85 S.8	-do-August 1985	117
REC New Statistical Handbook of AIOU S9	-do-January 86	38
REC A Case Study of Pakistan Studies B.A. Level S10 B.A Level (Elective).	-do-March 1986	40
REC A Feasibility Study on Photography: S11 A New Functional Course in Distance Education.	-do-March 1986	15
REC Statistical Digest of AIOU S12 (1985-86)	-do-June 1987	33
REC Study of Student Characteristics S13 -seeking admission in M.Sc. Pak Studies Course of AIOU.	-do-Oct. 1987	73
REC Statistics that tell a story S14 (Withdrawn, ammendmentsbeing worked out)	-do-Feb. 1988	27
REC Enrolment and Examination Report: S15 1981 -82	-do-Dec. 1988	167
REC Enrolment and Examination Report: S16 1982-83 .	-do-Nov. 1988	160
REC Pilot Study on Drop-outs in the S17 Allama Iqbal Open University	-do-Jan. 1988	105
REC Master of Business Administration S18	-do-Dec. 1988	40
REC A Case Study of Electrical wiring S19(F.A. Level Course)	-do-Nov. 1988	60
REC Evaluation of "Basic Functional S.20 Education Programme".	-do-May, 1988	76
REC Research Study on "Effectiveness S.21 of Television Programmes" (Available only in tabular form).	-do-Dec.1988	50

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REC Research Study on "Drop-out in S.22 AIOU Course" (Sponsored by International Research and Development Centre).	-do-Dec. 1988	50
REC Distance Education in Pakistan: S.23 A Case Study.	-do-Nov. 1989	
REC Evaluation & Students Feedback on S.24 Library Sciences Courses 422 & 423	-do-Dec. 1989	
REC Enrolment & Examination Result.: S.25 1983-84.	1990	
REC -do- 1984-85 S.26	1990	
REC -do- 1985-86 S.27	1990	
REC -do- 1986-87 S.28	1990	

The on-going research activities of the R&E Centre pertain to the following:

- Statistical Year Book, 1991.
- Up-dating of Vital statistics.
- Feasibility Study of Library Science Courses.
- Comparative Study of Teacher-Training under the AIOU and the Formal System.
- Problems of Distance Education Students.
- Evaluation of Mailing Department.
- Research on Television Programme on Lughat-ul-Islam (Arabic Language).
- Attitude of University Teachers towards Distance Education System.

In addition to the above, the different faculty-members, on their own, also occasionally undertake research on several other problems/aspects of formal as well as non-formal education.

PAPUANEW GUINEA

Richard Guy

THE NATIONAL CONTEXT FOR DISTANCE EDUCATION

In developing country terms, Papua New Guinea is considered to be a relatively rich country. Gross national product was about BUS 1.2 billion in 1991 and the country has considerable potential in terms of political stability and mineral endowment. Recent events, however, such as the closure of the Bougainville mine, the decline in the export prices of major commodities, and the emerging severe balance of payments deficits led to the Kina's devaluation by 10% at the beginning of 1990. After a real growth rate of 4% in 1988, the economy contracted by 3% in 1989 and 6% in 1990. Balancing this pessimistic medium term view is the likelihood of positive longer term developments. Gold deposits at Porgera and Lihir Island and oil discoveries at Iagifu illustrate the rich mineral potential of Papua New Guinea. These initiatives together with tourism and service industries suggest some expansion and restructuring of the workforce over the next decade. This will have implications for training and education.

At present, approximately 1.85 million people are potentially employable, while only around 250,000 are actually in the formal sector receiving wages. The annual increase in the labour force over the next decade is estimated at approximately 60,000 but total productive employment is unlikely to rise by more than 10-15,000 jobs annually over the same period.

The small number of jobs available, and the likely changes in the structure of the economy, suggest that distance education needs to be closely attuned to the implications for training of changes in the economy. In addition, distance education needs to provide relevant courses for the vast majority of the population, who will not be able to enter the wages sector of the economy.

Papua New Guinea is a young, developing country with a population of 3.9 million people of which 60% are under the age of twenty-five years. Papua New Guinea has an annual growth rate of 2.7% and the total population is expected to rise to around five million by the end of the century. At that time some 50% of the population will be under the age of eighteen years of age. Of the present total population, 87% are villagers who live as subsistence farmers in rural areas. Only 5% of rural people are involved in the cash economy, particularly in the coffee industry. Fifteen percent of the population are employed by government or private enterprise and most of these people live in towns and cities.

Each year some 10,000 Grade-Ten school leavers will have to be accommodated either by the rural subsistence sector (self-employed) or by informal activities in the urban areas. It is estimated by the Asian development Bank that only 4 % of primary school leavers and only 35% of secondary school leavers may expect secure wage employment. Millett (1990:3) has been critical of the orientation of education which "does not inculcate any sense of vocation in education, where the economic opportunities are most available, but instead generates non-agricultural] aspirations way ahead of the economy's capacity to fulfil them".

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Politicians regularly speak of universal primary education in Papua New Guinea and more recently a few have advocated universal high school education. The reality of these two events occurring in the short term is unlikely. The population is becoming younger and the cost of expanding the existing community and high school systems is prohibitive unless there is a significant rearrangement of current expenditure patterns by government. In these circumstances the continuation and expansion of distance education seem certain. The increasing enrollment numbers are already reflecting the important role that distance education can make in offering a cheaper, alternative form of basic education in Papua New Guinea. The expansion into technical and higher levels of education and training are likely to be more costly.

The language of instruction in all existing distance education courses in Papua New Guinea is English. This is the policy for all educational institutions. There are no plans to develop any distance education courses in tok ples (local languages) because of the large number of languages in Papua New Guinea, nor in tok pisen (a form of Melanesian Pidgin English).

The formal education system is managed at the local level by provincial governments who are responsible for schools and the employment of teachers, and at the national level by the National Department of Education whose role is the development of national curricula, policy and standards. The school system consists of community schools from Grades One to six, provincial high school from Grades Seven to Ten, national high schools from Grades Eleven to Twelve, technical and further education facilities, a non-formal system and tertiary education. Only two-thirds of the age cohorts between seven and twelve years of age attend school. Participation rates in lower secondary education is 16% and by upper secondary it drops to just 1% in the formal education system.

TABLE 1: Total Enrolments at Various School Grade Levels -1990

	Female	Male	Total
Grade 6	20852	27010	47862
Grade 7	6392	9974	16366
Grade 10	3798	6490	10288
Grade I I	569	1399	1968

These figures show not only the poor continuation rates but demonstrate the potential school age distance education students for the College of Distance Education and Grade Seven to Ten courses and Extension Studies Department at UPNG for Grade Eleven and Twelve courses from school age populations.

The National Higher Education Plan argues for an expansion in the higher education sector, but the number of students graduating from conventional education facilities at the Grade Twelve level is small (664 out of 962 graduates went onto tertiary study in 1990) and distance education is seen as supplementing these numbers. "In recent years, numbers of applicants from distance education have increased and this is a growing source of prospective higher education students" (CHE 1990:16).

There is a non-government involvement in education in the form of church schools from Grade One to Grade Ten which follow national curricula and objectives and an international school structure from Grades One to Twelve which follow Australian curricula.

The international school system was initially established to satisfy the demands of a large expatriate community. More recently, enrollments of Papua New Guinean children in these schools have increased. The only restriction on access to the international school system is in terms of the high fees which are charged.

Papua New Guinea has access to modern communication technology in the form of domestic and international subscriber telephone dialing facilities, facsimile and computer links. Domestic and satellite television is also available in many parts of the country. Government policy forecasts the use of a domestic satellite to enhance communication facilities in the late 1990s.

The existing communication system is effective, although a lack of trained technicians for repair work hampers efficiency of the system at times. The system is mostly restricted to urbanised areas but the greater proportion of the population live in rural areas. So while the system is effective it is not easily enjoyed by the entire population.

HISTORY AND BACKGROUND

Distance education in Papua New Guinea is relatively small compared to the organisation of distance education in other developing countries but this needs to be kept in perspective, as the country's total population is just 3.9 million people. The main elements at present in distance education in Papua New Guinea are courses for Grades Seven to Ten offered by the College of Distance Education, and Matriculation Studies together with Foundation Year university courses, and degree and diploma level courses in Education, Arts, Law and Commerce offered by the Extension Studies Department of the University of Papua New Guinea.

Correspondence education began in Papua New Guinea in the 1952 with the establishment of the Correspondence School which provided locally developed Grade Five and Grade Six courses for indigenous public servants, and the provision of higher level courses from the Queensland Correspondence School for isolated expatriate workers and their children. In 1959 the School had an enrollment of some 800 students. In 1964 all courses were replaced by new courses developed within the country. The Correspondence School was transferred to the Adult Education Branch of the Department of Education in 1967 and became known as the School of External Studies. Enrollments increased rapidly in the 1970's as conventional secondary education was introduced on a wide scale throughout the country and adults looked for a suitable way to follow similar studies. By 1972 enrollments in courses from Grades Seven to Ten and in mechanical, carpentry and building trades and in commercial subjects exceeded 22,000 enrollments. Demand was so high for courses that the School could not cope, and in 1978 when the School became the College of External Studies, it was decided to withdraw all technical and Grade Seven and Eight courses and to offer only Grade Nine, Ten and commercial courses. This reduced enrollments significantly. Demand continued for the withdrawn Grade Seven and Eight courses which were re-introduced in 1980 and 1982 respectively.

The name of the College was changed again in 1988 to that of the College of Distance Education and enrollments have continued to expand yearly. The purpose of the College of Distance Education has been the provision of an alternative means to gain lower secondary education qualifications. Initially, enrollments were of older public servants needing to

upgrade their academic qualifications. More recently, there has been an increase in the number of younger enrollees who wish to continue secondary education but are unable to gain one of the scarce high school places. There are only 16,000 places available for the 47,000 students who complete Grade Six at community school each year and who want to proceed to Grade Seven. There are just 1,000 places available for the 10,000 Grade Ten students who wish to proceed to Grade Eleven studies. The College courses follow the National Department of Education high school curricula and are academic and lead to the external Grade Ten examination as sat by high school students.

Monzell-Davis and Naidu (1989) point out that tertiary education was late in coming to Papua New Guinea with the establishment of the University of Papua New Guinea in 1966. Distance education is an even more recent phenomena at the tertiary level, beginning in 1976 despite the early rhetoric of the Currie Commission (1904) which recommended the establishment of an extension studies department at the university, "... if suitable potential students cannot go to the University, then the University must go to them". Even so, the view of the University of Papua New Guinea was hardly encouraging judging by Healey's (1978) statement that "no more than token support existed" for the Extension Studies Department. In time, this attitude hardly altered, "... there was in a few departments at UPNG a lack of cooperation which degenerated into obstruction of outreach activities" (Griffin 1984:323). The economic rationalists at the university had only to look at course enrollments in the early 1980's for evidence to simply abolish the department but the University did appoint a Director in 1985 who had first hand experience in distance education and was an unashamed advocate of this form of education. Enrollments with the Department expanded rapidly from this time. More recently, Crossley (1989) notes an awakening of interest within the University for the Department of Extension Studies although resource limitations and subsequent effects on staffing continue to constrain its expansion.

The instructional system at the College has been consistently based on the production of good quality teaching materials in print form. The organisation of study groups is an important aspect of the instructional system and these were introduced on a wide scale from 1984 with the establishment of College centres in all nineteen provinces in the country. Very few students are enrolled in courses at the College who do not have access to study centres.

since the establishment of distance education at the University of Papua New Guinea the dominant instructional form has been the printed word. Comprehensive teaching materials are produced which consist of a book of readings, study guide and an assignment book. Lahara (summer schools) residential sessions have been a common feature of distance study at the University since its inception. These sessions are normally six weeks in length and involve full time study. Laharas have the effect of speeding up the progress of part time distance students and providing face-to-face teaching contact with students. since 1985 the University has actively pursued a student support policy which aims to provide every distance student with the opportunity to attend weekly tutorial sessions in their local area. In more isolated areas it can be difficult locating appropriately qualified tutors but it is estimated that 80% of all University distance students receive weekly, face-to-face tutorial assistance. This support structure is based on a provincially based University centre establishment, Of the nineteen provinces in Papua New Guinea, ten have established University centres in association with the Extension Studies Department. Funding for these centres comes from provincial governments but the management of the centre is the University's responsibility.

The provincial university centres play an extremely important role in the delivery of distance education services in Papua New Guinea. Ten centres have been established over the past decade in North Solomons (1982), East New Britain (1982), Madang (1983), East Sepik (198D), New Ireland (198n, Enga (1988), Southern Highlands (1988), Manus (1990), Fly River (1990) and Western Highlands (1991), and negotiations are continuing with several other provinces. The decision to establish a centre is entirely that of the Provincial government. It is interesting that the first two provinces to establish centres were the wealthiest in the country and had the foresight to acknowledge the benefits of a university centre for the province. since that time Enga and the Southern Highlands, which are less well endowed provinces, have decided that the establishment of a university centre is a positive means by which to add to the improvement of economic conditions within the province. The purpose of the centres is to provide university services and to support students engaged in distance study. The centres are located in provincial capitals and their task, as well as looking after urban students is to provide access to courses for isolated students in rural areas. Tutorial support to these isolated students is provided by centres and regular activities are carried out in those areas to stimulate enrollments. Weekly radio broadcasts are also used for organisational and publicity purposes but not for teaching. The establishment of these centres has been one of the contributing factors to the expansion of distance education in Papua New Guinea.

The College is a national institution and its funding has always come through the budget allocation of the National Department of Education. Fees are an additional source of income but the College has received no identifiable overseas aid money except that which has been received by the Department in general and used to support the education system as a whole.

Funding distance education at the University depends solely on the internal allocation of University funds, except for the running costs of the University centres which is a provincial government matter, and the money raised from student fees. There has been some international aid money but it has been relatively small to date and has assisted with training programmes and the purchase of some capital equipment.

Distance education in Papua New Guinea has progressively expanded since the 1950's. There is no evidence of any major initiative in distance education undergoing decline although there is evidence that some courses have been abolished. Along with a significant increase in student numbers at the established distance education institutions in Papua New Guinea, there has also been growth in the number and kinds of institutions offering distance education courses. The Pacific Adventist College offers secondary education courses in Papua New Guinea and is the centre of a drive into the South Pacific region. The Department of Health, Post and Telecommunications, Papua New Guinea Electricity Commission and the Police Department have incorporated distance education courses into their training programmes. They have used existing College of Distance Education and Extension Studies courses or prepared courses to suit their particular needs. In addition, overseas distance institutions, some reputable, and others less so, regularly advertise in Papua New Guinea newspapers.

As the number of institutions has expanded so has there been a need for closer forms of communication between them. Over the past five years, informal contacts have developed into more formal relationships with the objective of improving the practice of distance education and the need to construct distance programmes which are sensitive to Papua New

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Guinea conditions. Common problems and themes have emerged from the increase in dialogue between institutions about the production of suitable course materials, institutional overlaps, delivery and instructional systems, research needs, the needs of women, the problems of isolated groups, and support as well as incentive systems for students. The growth of institutions involved in distance education, together with a number of conference recommendations led to the formation of the Papua New Guinea Association for Distance Education in 1989. The Association has representatives, including students, from all organisations involved in distance education in Papua New Guinea. It seeks, through its Constitution, "to promote the effective practice of distance education throughout Papua New Guinea" and "to encourage communication between distance educators and distance education institutions through sharing ideas, resources and expertise". Workshops sponsored by the Association were held in 1990 and an extensive schedule of workshops on desktop publishing, student support systems, technical course writing and women and distance education have been organised for 1991.

THE LEGALSTATUS OF DISTANCE EDUCATION

Distance education is not referred to separately as such in government legislation but comes under the charter of several acts of parliament. The College of Distance Education is the only distance education institution in the national education system and is embodied in the Education Act (1976). The Department of Extension Studies is included in the charter of University of Papua New Guinea Act (1966). The Extension Services at the Pacific Adventist College is established within the Pacific Adventist College Act (1983). The Higher Education Plan of the Commission for Higher Education is the most recent of ficial statement concerning the growing role of distance education and it is expressed in terms of human development in Papua New Guinea and the relative cheapness of this form of education in comparison to conventional forms of education.

OVERVIEW OF CURRENT SITUATION

Aims and Objectives of Distance Education

The two major institutions offering distance education in Papua New Guinea do not have specific aims and objectives for each level of education but rather provide a broad set of objectives to cover all aspects of their programmes. The primary aims of the College of Distance Education as stated in the Shaw Report (1986) are:

1. to develop the students' physical, moral, intellectual, social, emotional and spintual dimen-
sions;
2. to develop the students' potential to grow in knowledge, wisdom, understanding, skills and
goodness;
3. to develop a sense of personal discipline and responsibility towards the self and the wider com-
munity.

Special aims are stated as:

- a. to provide an opportunity for people who have not enjoyed the benefits of a secondary education;
- b. to upgrade the qualifications and skills of people already in employment;
- c. to upgrade the qualifications and skills of people who wish to further their education;
- d. to provide enrichment for the love of learning and self-improvement;
- e. to encourage people to be occupation-creators With self-motivation and initiative, rather than job-takers;
- f. to provide skills-oriented subjects: e.g. technical and agriculture courses.

Distance education at the University of Papua New Guinea has consistently endorsed the following objectives (Extension Studies Handbook, 1990) over the past six years:

1. reach the greatest number of people throughout the nation;
2. improve study opportunities for people living and working in remote areas;
3. give mature people a chance to improve their qualifications and skills, thus compete for promotions at work;
4. generally improve education standards throughout the country;
5. allow people to study as they continue to work;
6. upgrade the qualifications, particularly of school teachers, who have such an important role to play in a new nation;
7. provide education at a low cost to students and the government by saving on scholarships, accommodation and capital costs;
8. further the education of women.

Recently the Department of Extension Studies Five Year Plan (1988-1993) has established a set of internal objectives which represent an admission of shortcomings within the field and require attention. These objectives concern improving its relationships with other university teaching departments in order to improve the quality, to producing more course offerings which will contribute to greater "course enrollments" and "greater cost-effectiveness", to sharing resources with other distance institutions in the region, to expanding university provincial centres and to strengthening the Department's commitment to continuing education and support structures for students. Despite this level of internal critical reflection by the Department, there has been little critique of the goals of distance education at the national level by the two major institutions offering distance education in Papua New Guinea. The objectives of the two major distance education institutions in Papua New Guinea relate to the development of the individual which will ultimately result in national development.

The only private distance education institution is the Pacific Adventist College and it puts forward more of a rationale for its existence rather than a clear statement of objectives.

Our first and current purpose is to develop a core of preliminary subjects (at matriculation/university entrance level) to be offered by correspondence. Whilst those will be available to anyone who meets our requirements they are more specifically intended for LOW of our denominational workers who wish to upgrade their qualifications, and are potentially capable of doing so, but do not have an acceptable university entrance. Such persons, once they have successfully completed the necessary preliminary subjects, would be eligible to enter PAC and undertake a course of study as regular students (PAC Handbook 1990:2).

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Control, Organisational and Management Structure of Distance Education

Distance education in Papua New Guinea is a nationally organised structure offered through two major institutions - the University of Papua New Guinea and the National Department of Education's College of Distance Education. Provincial governments play a financing role in the establishment of University centres in their provinces, but the management of those centres remains the responsibility of the University. Needs assessment and future development of distance services in provinces receives input from provincial governments through consultative means but ultimately planning, and curriculum development rest with the University.

There is only one private distance education institution in Papua New Guinea, the Pacific Adventist College (PAC), which is a relatively small provider. However PAC's long term goal is the establishment of its Papua New Guinea organisation as the headquarters for the expansion of its courses throughout the South Pacific.

All decision making at the University ultimately rests with the University Council which is also concerned with education programmes at the University. The College of Distance Education has its own Governing Council, solely concerned with distance education matters, which determines overall policy. It must be pointed out that the College of Distance Education courses follow closely the existing provincial high school curriculum which is ratified by a National Secondary Education Board of Studies. The Pacific Adventist College also has its own governing council which oversees the initiatives of Extension Services as well as the other activities of the College.

The institutions involved in distance education are for the most part subject to internal organisation and regulation. It must be noted that distance education in Papua New Guinea is not regulated by a national board of studies or controlling body or similar organisation. The management of distance education is contained in the broad legislative acts approving the various forms of education in Papua New Guinea. The relationships between distance and non-distance education institutions in Papua New Guinea appear to be sound because of the organisational structures and the reality of education in the country. Institutions of higher education have clear lines of demarcation and the involvement of the University of Papua New Guinea in distance education does not interfere with tertiary courses offered at the University of Technology - the only other university in the country which is mostly oriented towards engineering and science degrees. In fact the University of Papua New Guinea and the University of Technology are co-operating in the development of a Diploma in Commerce by distance as a joint qualification in 1991.

At the secondary level, the demand for places far outstrips their availability in conventional high schools so that the College of Distance Education, rather than being perceived as a threat to on-campus education, is viewed more as a vital support for those students who are unable to gain full time places in high schools.

Financing Distance Education

The national yearly expenditure on education represents 0.7% of the gross national product. The amount spent on distance education annually represents 0.01% of the gross national

product. The following information gives an additional perspective to the funding arrangements for distance education in Papua New Guinea. The funding of the College of Distance Education has shown some improvement over the past few years. In 1983 it was \$US 422,000 but despite the significant increase in enrollments it has generally been neglected in terms of staffing and funding by government.

TABLE 2: National Department of Education - Enrollment and Expenditure by Sector 1990

Sector	Enrollment	% Enrollment	Expenditure (US\$)	% Expenditure
Primary	402,948	82.03	7,802,900	37.74
Secondary	55,057	11.20	11,522,100	55.73
Non-formal	5,395	1.09	703,800	3.40
CODE	27,780	5.65	644,100	3.11
Total	491,180		20,672,900	

The National Department of Education has a policy of targeting sectors of the education system through World Bank loans to upgrade the overall quality. The provincial high school system is targeted at present which explains the large expenditure of money on that sector. There are no plans in the near future to target distance education in a similar way. Despite the size of the enrollment at the College of Distance Education compared to the total education enrollment, it only attracts a less than proportional share of the overall education budget. The unequal distribution of funds calls into question the continuing role of the College. Its poor physical location and low staffing levels reflect the small financial allocation that it receives.

TABLE 3: University of Papua New Guinea - Enrollment and Expenditure by Academic Departments 1990

	Enrollment	% of Enrollment	Expenditure (\$US)	% of Expenditure
Extension Studies	4,584	36.38	345,000	5.34
All other teaching Departments	4,009	63.62	6,110,954	94.66

The funding of distance education within the University is disproportionate to student enrollment. It is possible to make some budgetary comparisons between distance and non-distance education in Papua New Guinea.

Table 2 above indicates the low proportion of funds allocated to the College of Distance Education compared to that which is allocated to the secondary sector for PNG. The Extension Studies Department enrollment is dominated by studies at the Grade Eleven and Twelve levels in PNG. The only alternative for students studying these courses on a full time basis is at one of the four existing national high schools in PNG. The annual budget of one of those institutions, which caters to approximately 500 students, is some \$US

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900,000 which is considerably more than the Extension Studies budget, at some \$US 345,000 per year.

Geographical Coverage of the Provision of Distance Education

Theoretically, there are no geographical limits to the provision of distance education in Papua New Guinea. Provincial distance education centres administered by the University of Papua New Guinea and the College of Distance Education are widely established throughout the country. These centres are situated in provincial capitals. Some students may be restricted in their access to the tutorial provision available at these centres by geographical isolation and consequent difficulties with transportation. Increasingly, students in isolated areas are not allowed to enroll in secondary studies unless they have access to regular weekly tutorials. The student support mechanism of study groups is seen as vital for students to complete secondary studies successfully. The centres do organise locally based study groups wherever the number of students justifies the formation of a study group, and a suitably qualified tutor is available, but invariably some students will be prevented from taking up opportunities unless they move close to a provincial centre.

Instructional Systems

Distance education instructional methods in Papua New Guinea consist predominantly of print based materials. Computer aided instruction, teleconferencing, and interactive video are not used at all. Radio and audio cassettes are used to a limited extent. The print materials are often supported by face-to-face tutorials, although the availability of tutorials tends to be restricted to larger populated areas where suitable part-time tutors are available. All written materials are in the English language. This is consistent with national government policy that English is the language of instruction in all educational institutions.

Research Activities in Distance Education

Research in distance education in Papua New Guinea is generally speaking rather limited. The priority of institutions has been to establish systems and credibility within the community but this has been, on some occasions, at the expense of soundly conceived initiatives.

There has been no major, systematic research project carried out on Extension Studies at the University. The Advanced Diploma which is an in-service distance education programme for high school teachers, and is offered at the Goroka Teachers' College campus of the University, was funded under the World Bank's Education 111 project and as such required an external evaluation. Two evaluations of this project were carried out by Wari (1985; 1989). The College of Distance Education was subject to an extensive review carried out by Shaw (1986) to assist in the future development of the College.

Research in distance education in Papua New Guinea has mostly consisted of research by individuals aimed at higher degrees and journals and conference papers. The following is a brief description and analysis of that literature.

The research literature concerning distance education in Papua New Guinea is small mostly because of the relative newness of distance education. The literature consists of reports which call for the development of distance education systems (Currie Report 1964; Gris Report 1973; Kinyangui 1978); general descriptive statements about the organisation of distance education (Kaeley 1985; Lipscomb 1984; Monsell-Davis 1989); program reviews and evaluations (Guy 1987; Jordan 1987; Kaeley 1989; Kember 1980; Meintjes 1987; Shaw 1986; Wari 1985); comparative studies (Kaeley 1984); the economics of distance education in small scale distance institutions (Guthrie 1990); student profile information (Guy 1989; John 1990; Kaeley 1980); entry requirements (Phillip 1990); instructional variables (Kaeley 1990) and drop-out studies (Kember 1981; Taylor 1986). This literature tends to be stated in positivistic terms and is driven predominantly by organisational and psychological conceptions of distance education (Guy, 1990a). The orientation of research tends to support the very structure of distance education in Papua New Guinea. Its positivism is reflected in the vocational orientation and national development strategy of distance education which is aimed at western forms of efficiency, rationality and development rather than a social role or an indigenous response to distance education. This is illustrated in the ideological positions found in much of the research literature. Kaeley (1989), for instance, suggests that "Distance education so far has been used as a handicraft industry to train teachers in Papua New Guinea, it can be really useful for the country if it could be employed in industrial fashion in Peters' sense". From another point of view, Meintjes (1989) discussing the selection of content for distance education programs at the Pacific Adventist College explains, "compatibility with our ideals and identity - was easy to secure, as we were not actively seeking to confirm that identity but sought rather to excise or explain any overt denial of it".

What is largely lacking, even given this short tradition of research, is any extensive attempt to question the assumptions that the theory and practice of distance education bring with it in terms of the social and cultural contexts within Papua New Guinea (Lipscombe 1985). It could be argued that the models of distance education should have been critically evaluated before adoption in Papua New Guinea but this would deny the vested interests of the colonial authorities and the "local elites" (Latukefu 1981) who replaced them after independence. There is some critical reflection in the research literature and Crossley (1989) analyzes the role of distance education and the upgrading of teachers; Mandie-Filer (1988) provides a sociological and pedagogical analysis of distance education and women in Papua New Guinea; Simpson (1990) describes a practitioners response to the democratisation of distance education opportunities for women in this country; Kaeley (1988) analyzes the achievements of female distance education students in mathematics programs; and Guy (1990b) critiques the form and ideology of text in Papua New Guinea. There is little understanding of the orientation to learning and study, conceptions of learning and the factors that influence learning by distance students in Papua New Guinea (Marton 1984). Of course these issues are not adequately researched or understood in many parts of the world (Evans and Nation 1989). Crossley (1989:22) acknowledges that such research demands in Papua New Guinea represent "a big challenge, for while the more pragmatic concerns of distance education will continue to dominate attention for some time to come, the response to qualitative issues such as these will in large part determine the respect and value accorded to distance education programs and to those, both staff and students, who participate in them". It is important that these qualitative issues are understood, sooner rather than later, and translated into more effective practice, otherwise distance education practices will

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become further legitimated and beyond critique.

On-going research again consists of individual work at PhD level by two academics within the Department of Extension Studies and research aimed at publication in journals. The Department of Extension Studies has recently established a one year, research officer position to develop a computerised statistical base for Extension Studies to monitor the progress of students. Little research has been carried out at the College of Distance Education due to staffing pressures and the lack of research skills amongst staff. Some work was done in the past (Lipscombe 1985) and attention is now being given to the need to develop a sound statistical base of information about enrollments and student progress.

Enrollment in Distance Education

The following figures represent part time enrollments only - there being no full time enrollment at these levels.

TABLE 4: Total Enrollments by Level at University of Papua New Guinea

LEVEL	1985	1986	1987	1988	1989	1990
Secondary	529	1699	2473	2844	4249	4223
Foundation	326	426	348	276	428	303
Diploma*	-	-	-	-	-	-
Advanced Dip**	42	56	65	47	39	42
First Degree	0	96	50	47	33	58
Total	897	2317	2936	3214	4749	4626

* It is not possible to give reliable figures for enrollments at this level because students do not enroll in programmes, but in courses of study and apply at an appropriate stage for graduation in a particular programme. Many of the courses at the Diploma level share courses available in the Foundation year programme. Many of the potential Diploma graduates are hidden in the Foundation enrollment numbers above.

** This programme (Advanced diploma in Teaching) is not run through the Department of Extension Studies but through the Goroka Teachers College campus of the University of Papua New Guinea and is readily identifiable. The total figure for distance students at the University is increased by these Advanced Diploma in Teaching numbers in this table

TABLE 5: Total Enrollment by Level at CODE

LEVEL	1984	1985	1986	1987	1988	1989	1990
Secondary	6788	10777	14172	15104	18642	22313	27780
Cert./Diploma	-	-	856	860	854	643	610
Total	6788	10777	15028	15964	19946	22956	28390

The following figures represent part time enrollments only, there being no full time enrollment at these levels.

TABLE 6: Total Enrollment by Level at Pacific Adventist College

LEVEL	1985	1986	1987	1988	1989	1990
Secondary	39	119	76	71	52	101
Cert/Diploma*	64	50				
Total	39	183	126	71	52	101

* The Associate Diploma in Administration was only offered in 1986/87.

TABLE 7: Enrolment Ratio of Distance and Non-distance Students, UPNG

LEVEL	Distance	Non-Distance	Ratio
Secondary	4223	2070	2.04:1
Pre-Degree	303	537	1:1.7
Diploma*	-	-	
Degree	58	553	1:9.5

* Figures cannot be extracted for this level given present enrolment procedures.

TABLE 8: Enrollment Ratio of Distance and Non-distance Students, CODE

LEVEL	Distance	Non-Distance	Ratio
Secondary	27780	53089	1:1.9
Cert/Diploma	610	108	5.6:1

University of Papua New Guinea statistics regarding graduation rates are difficult to compile because distance students at the tertiary level often transfer to full time study after having completed one or two external courses. Most tertiary courses offered through Extension Studies tend to be introductory or first year courses and it is a formal regulation in a number of programmes (e.g. the In-service Bachelor of Education degree) that students transfer to full time status to complete all of the requirements for the award. However, statistics are available as to the number of students who are awarded passes in individual courses each year. The following table represents those figures translated into percentages.

TABLE 9: University of Papua New Guinea - Completion Rate - % Passes by Level

LEVEL	1985	1986	1987	1988	1989	1990
Secondary	38.1	39.7	43.3	49.7	48.4	49.6
Foundation	32.1	33.1	36.6	35.7	42.2	45.9
Diploma*	-	-	-	-	-	-
Advanced Dip**	59.5	48.2	52.3	29.3	50.0	62.5
First Degree	N/A	42.2	45.4	39.2	63.6	41.6

* These figures are not available for the reasons stated above.

** These figures are accurate because students clearly enrol in the Advanced Diploma in teaching programme from the outset and are easily tracked.

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These are the only figures available at College of Distance Education to indicate success rates in the overall programme. Details are indicated by the completion of school leaver forms by students.

TABLE 10: Completion Rates at College of Distance Education

LEVEL	1985	1986	1987	1988	1989	1990
Secondary	75	182	410	461	538	584
Cert/Diploma						

TABLE 11: Completion Rates at PAC

LEVEL	1985	1986	1987	1988	1989	1990
Secondary*					5	5
Cert/Diploma	No graduates to date					

* In addition to these graduates, Extension Services recommend students to enrol in full time PAC courses without them necessarily having completed the full secondary programme. Some 15 students are estimated to be in this category.

TABLE 12: Total Accumulated Graduates at UPNG

Secondary	350*
Pre-Degree	150*
Diploma	115**
Degree	Nil

* Reliable statistics are not available because of poor record keeping procedures in the past and for the reasons stated above. These figures therefore are estimates and only cover the period 1955-1990.

**Advanced Diploma in Teaching graduates.

TABLE 13: Total Accumulated Graduates at CODE

Secondary 2250

Cert/Diploma 7

Pacific Adventist College

Secondary Nil

Cert/Diploma Nil

International Affiliation and Co-operation

Both Extension Studies and the College of Distance Education are affiliated with ASPESA, ICDE, the Commonwealth of Learning, and the Papua New Guinea Association of Distance Education. The Commonwealth of Learning is attempting to establish a South Pacific Association for Distance Education centred at the University of the South Pacific and contact

has been made with distance education institutions in Papua New Guinea and the Papua New Guinea Association of Distance Education which has shown interest in this initiative.

The National Department of Education through the Education m Project - a five year financial loan agreement from 1984-1989 with the World Bank - included a sub-project known as the Advanced Diploma in Teaching which was to upgrade secondary teachers by distance education means. The amount of aid was approximately \$US 1.6 million over the five year period. The University has successfully negotiated a \$US 3.5 million loan for the construction of a building complex at the University for the Department of Extension Studies and for a number of Course Developer positions through the Lome Agreement and the European Economic Community beginning in 1992. The Australian International Development Assistance Bureau began to assist the development of distance education in Papua New Guinea in 1991. The major form of financial assistance has been for training distance educators and a grant of PUS 30,000 has been made to the Papua New Guinea Association of Distance Education for training programmes. The Commonwealth of Learning has funded the purchase of capital equipment at the University of Papua New Guinea for distance education to the value of PUS 15,000.

Growth and Expansion

The University and the College of Distance Education have both been given budgetary approval for substantial building programmes in 1991/1992. The Commission for Higher Education in its National Higher Education Plan (1990:iii) has recommended that University provincial extension centres "be operating nationwide by 1992 and, substantially more students to move into higher education through the extension route". It bases its findings on the premise that "Extension study appears to be by far the most cost effective form of higher education", citing a cost per student of some BUS 1,330 to complete the pre-degree programme but with a pass rate of some 33% for an Extension Studies programmes combined. The Commission also calls for integrated services between the College of Distance Education and the University of Papua New Guinea to make the most efficient use of human and financial resources.

Some observers believe that distance education has gone through a substantial period of growth and at times it has outstripped planning and the provision of adequate resources (Van Trease 1990). It may be more important at this stage of development to consider a period of consolidation and to put in place effective student support structures, the refinement of courses, and staff training before entering the next wave of student expansion.

Problems and Issues

The dramatic expansion in enrollments at the two major distance institutions in Papua New Guinea suggest that the concept of distance education is perceived by the community as an effective, alternative means to broaden the limited opportunities to undertake secondary studies.

Judgements can be made as to the effectiveness of distance education in terms of completion and success rates. Unfortunately the available statistical information in Papua

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New Guinea prior to 1985 is unreliable. The overall pass rate by students in matriculation courses at the Extension Studies Department of 49.6% may appear to be relatively poor (although many other institutions continue to tolerate worse results). The Department is conscious that greater effort and resources need to be placed in the area of student support in order to improve the overall pass rate. The effectiveness of the foundation/degree programme is less so both in terms of the number of courses offered and the pass rates for those courses that are available. The development of university courses is a rather long process with several committee structures to be consulted, and changes in overseas staff have seriously interrupted course development. The lack of continuity is a factor constraining planned and systematic development of distance education.

An overall assessment of the effectiveness of distance education should not simply be based on student achievement. There are other benefits associated with distance education in Papua New Guinea which are not apparent from a statistical approach. The notion that distance education provides a realistic opportunity for Papua New Guineans to participate in education should not be underestimated. The point has been made that high school education is elitist and selective and many people are excluded from participating in mainstream education opportunities. The conventional education system is unlikely to expand sufficiently to take up the ever increasing numbers of students who want secondary education. Distance education provides some relief in a physical sense but also in a social sense, and marginalised youth are not completely alienated from the elitist system of conventional education.

The quality of all aspects of the distance education system requires constant monitoring and application of critical reflection which would lead to improvement. The reality of distance education in Papua New Guinea, however, often consists of maintaining the system and there is little time for reflection and improvement. The lack of a well developed infrastructure system throughout the country greatly inhibits the quality of the distance education system.

There are many other factors which constrain the development of distance education in Papua New Guinea but broadly speaking they are subsumed by the lack of an adequate infrastructure to support distance education initiatives, such as regional study facilities; suitably qualified tutors; materials production systems; and technological capacity (from plates for printing purposes to photocopiers and word processors). There is also a lack of trained national staff entering the field of distance education, especially in the area of curriculum development and course writing. Papua New Guinea has a shortage of national staff to meet the demands of non-distance education institutions and there is a strong skepticism amongst many national academics about the legitimacy of distance education as a form of education which can achieve results comparable with on-campus full time programmes. In addition, it is difficult to maintain a high level of staff continuity within the distance education systems in Papua New Guinea. Contract staff are highly mobile and systematic course development is problematic. Similarly, the ability to confidently publicise and plan a wide range of course offerings in a calendar year, is difficult. Decisions about course offerings are often made late and students therefore have insufficient time to organise their personal lives so they can take advantage of distance study.

A significant issue needs to be addressed by distance education in the near future. Papua New Guinea has been undergoing significant social and cultural upheaval over the past ten years as a result of high levels of youth unemployment, urban drift, alienation of youth from traditional homelands and a breakdown in traditionally accepted values and patterns of

behaviour. The continuing ideology of distance education in Papua New Guinea which views the outcomes of education in terms of work and employment are less tenable now than ten to twenty years ago. The existing rationale and practices of distance education need to be fully understood in Papua New Guinea in order for distance education to realign itself with the needs and expectations of a society undergoing rapid change. The Matane Report (1986) has signalled a change in the official philosophy of education for Papua New Guinea which is sympathetic to social change. Conventional sectors of the education system are reconstructing curriculum but distance education continues to remain isolated from this movement and is continuing to practice distance education based on outmoded assumptions. This is a difficult area for conceptualisation but it is vital that distance education begin the process in order that it retain relevance and value.

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ABBREVIATIONS

AADEP	Australian Association of Distance Education Principles
AAOU	Asian Association of Open Universities
ABC	Australian Broadcasting Commission
ACHS	Air and Correspondence High Schools
ADB	Asian Development Bank
AEC	Atoll Education Centers
AIDP	Australian International Development Programme
AIOU	Allama Iqbal Open University
APEI	Asia and the Pacific Programme of Educational Innovation for Development
APEID	Asian Programme of Educational Innovation and Development (UNESCO)
ASPESA	Australian and South Pacific External Studies Association
AVEC	Audio-Visual Education Centre
BIDE	Bangladesh Institute of Distance Education
BTT	Basic Teacher Training
CCC	Catholic Doctrine Correspondence Course
CEP	Condensed Education Programme
CEID	Centre for Educational Innovation and Development
CES	Centre for Educational Services
CIDA	Canadian International Development Agency
CODE	College of Distance Education
COL	Commonwealth of Learning
CRTVU	Central Radio and Television University
CTSDC	Curriculum, Textbooks, Supervision Development Center
CES	Centre for Extramural Studies
CUHK	Chinese University of Hong Kong
CUT	Cutin University of Technology
CVC	Community viewing Centers
DDE	Department of Distance Education
DE	Distance Education
DEANZ	Distance Education Association of New Zealand
DEC	Distance Education Centre
DEEC	Distance Education English Course
DERRC	Distance Education Regional Resource Centre
DTEC	Distance Teaching English Course, Maldives
DTT	Department of Teacher Training
ESA	External Services Agency
HECS	Higher Education Contribution Scheme
HMG	His Majesty's Government
IACE	International Association for Continuing Education
ICDE	International Council for Distance Education
ICIHE	International Council for the Innovation of Higher Education
IDRC	International Development Research Centre
IGNOU	Indira Gandhi National Open University
IHTES	Interstate Heads of TAFE External Studies
ILO	International Labour Organization
IOE	Institute of Education
ITM	Institute of Technology in Mara

JSC	Junior Secondary Certificate
KACU	Korea Air and Correspondence University
KEDI	Korean Educational Development Institute
KSA	Korean Standard Association
LU	London University
MOEC	Ministry of Education and Culture
MOET	Ministry of Education and Training
NDE	National Department of Education
NFEU	Non-Formal Educational Unit
NIEMT	National Institute of Educational Media and Technology
NIME	National Institute of Multimedia Education, Japan
NTV	Nepal Television
ODA	Overseas Development Agency
OLI	Open Learning Institute, Canada
OLIHK	Open Learning Institute of Hong Kong
OPP2	Second Outline Perspective Plan
OU-UK	Open University, the United Kingdom
OUSL	Open University of Sri Lanka
PCP	Personal Contact Programmes
PNGADE	Papua New Guinea Association for Distance Education
PNU	Payame Noor University
PROAP	UNESCO Principal Regional Office for Asia and the Pacific
PRTVU	Provincial Radio and TV Universities
PTOC	Primary Teachers' Orientation Course
RTPP	Radio Teacher Training Project
RTP	Radio Tuition Programme
SAARC	South Asian Association for Regional Cooperation
SBP	School Broadcasting Programme
SICHE	Solomon Islands College of Higher Education
SIMs	Self-Instructional Materials
SLBC	Sri Lanka Broadcasting Corporation
SLC	School Leaving Certificate
SLIDE	Sri Lanka Institute of Distance Education
SLMs	Self Learning Materials
SOU	Singapore Open University
SPACE	School of Professional and Continuing Education
SPADE	South Pacific Association of Distance Education
SPOC	South Pacific Organizations Coordinating Committee
STOU	Sukothai Thammathirat Open University
TAFE	Technical and Further Education Colleges
TFYP	Third Five Year Plans
TTC	Teacher Training College
TVUs	Television Universities
UA	University of the Air, Japan
UGC	University Grant Committee
U NDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Family Planning Association
U NICEF	United Nations Children's Fund
UPE	Universal Primary Education

UPNG	University of Papua New Guinea
USAID	United States Agency for International Development
USM	Universiti Sains Malaysia
USP	University of the South Pacific
UT	Universitas Terbuka
VAOP	Victorian Association of Off-Campus Providers
VOM	Voice of Maldives
VSO	Volunteer Service Overseas
WHO	World Health Organization

LIST OF NATIONAL COORDINATORS AND CONTRIBUTORS

Country	Name	Position/Address
Australia	Arger, Geoff	Assistant Director Distance Education Centre University of New England Ardale, N.S.W. 2351 Australia
Bangladesh	Haque, Shamsul	Professor Institute of Education and Research University of Dhaka Dhaka- 10.00 Bangladesh
China	Zang, Jinping	Deputy Chief of the President Office of CRTVU Central Radio & TV University No. 83, Fuhsing Road Beijing, 100856 P.R. CHINA
Hong Kong	Dhanarajan, G.	Director The Open Learning Institute of Hong Kong 9-13/FI., Trade Department Tower 700 Nathan Road, Mongkok, Kowloon Hong Kong
India	Datt, Ruddar	Principal School of Correspondence Courses and Continuing Education University of Delhi 5 Cavalry Lines Delhi -110 007 India
Indonesia	Suparman, Atwi	Assistant Rector Universitas Terbuka Jalan Cabe Raya Pondok Cabe, ciputat 15418 Indonesia
Iran	Zohoor, H.	Chancellor Payam-E-Noor University P.O, Box 19395-4697 Teheran Iran

Japan	Kato, Hidetoshi	Director-General National Institute of Multimedia Education 2-12 Wakaha, Chiba-shi Maihama-ku, Chiba 261 Japan
South Korea	Kim, Synghan	President Society of Distance Education Korea Air and Correspondence University #169 Dongsung-dong. Chongro-ku Seoul 110-791 Korea
Laos	Chanthala, Khamtanh	Vice-Minister Ministry of Education and Sports Vientiane Laos
Malaysia	Ahmad, Qasim	Director Centre for Off-Campus Studies Universiti Sains Malaysia Minden, Penang 11800 Malaysia
Maldives	Brahmawong, Chaiyong	Professor of Education School of Education Sukhothai Thammathirat Open University 9/9 Muangthong Dhani Road Nontaburi 11120 Thailand
Myanmar	Maung, U Min	Director-General Department of Higher Education Thaton Road, Yangon Myanmar
Nepal	Shrestha, Gajendra Man	Professor and Head Central Department of Curriculum and Evaluation Faculty of Education Tribhuvan University Kirtipur Campus, Kathmandu Nepal
New Zealand	Prebble, Tom	Director and Associate Professor Extramural Studies Extramural Centre Massey University Palmerston North New Zealand

Pakistan	Siddiqui, Shaukat Ali	Professor of Education Faculty of Education Allama Iqbal Open University Sector H-9, Islamabad Pakistan
Papua New Guinea	Guy, Richard	Co-ordinator - Education Studies Department of Extension Studies The University of Papua New Guinea Box 320 University P.O. Papua New Guinea
Singapore	Dhanarajan, G.	Director The Open Learning Institute of Hong Kong 9-13/FI., Trade Department Tower 700 Nathan Road, Mongkok, Kowloon Hong Kong
University of South Pacific	Mathewson, Claire	Director Extension Services University of the South Pacific USP Center, Extension Services P.O. Box 1168, Suva Fiji
Sri Lanka	Kothalawala, D.E.M. (Mrs.)	Professor of Education Education Division Faculty of Humanity and Social Sciences The Open University of Sri Lanka Newala, Nugegoka Sri Lanka
Thailand	Brahmawong, Chaiyong	Professor of Education School of Education Sukhothai Thammathirat Open University Nontaburi 11120 Thailand
Turkey	SoZEN, Nur	Professor and Coordinator International Relations Ankara University Tandogan Meydani, Ankara Turkey
Vietnam	Tan, Tran Dinh	Rector Vietnam National Institute of Open Learning vien Dao Tao Mo Rong NHA B-101 Phuong Bach Khoa Quan Hai Ba Trung Hanoi Vietnam

LIST OF PROJECT TEAM MEMBERS

A Survey of Distance Education in Asia and the Pacific

A study conducted by:

The National Institute of -Multimedia Education (NIME), Japan

Director-General: Hidetoshi Kato

Advisors: Marco Antonio R. Dias, UNESCO, France
Hidetoshi Kato, NIME, Japan
Muhamad Selim, UNESCO-PROAP, Thailand
Leonardo De La Cruz, UNESCO-PROAP, Thailand
Keith Harry, ICDL, Open University, U.K.

Members of the Research Team:

Japan:

Project Director: Suk-Ying Wong, Ph.D., Associate Professor, NIME

Takehiko Kariya, Ph.D., Associate Professor, NIME

Aya Yoshida, M.A., Associate Professor, NIME

Atsushi Hamana, M.A., Associate Professor, Kansai Women's Junior College

Satomi Sato, Ph.D., Lecturer, Seitoku University

Keiko Yoshihara, M.A., University of Tokyo

International visiting Scholars:

Chaiyong Brahmawong, Ph.D., Professor, Sukhothai Thammathirat Open University, Thailand

Joanne LaBonte, Ph.D., JSPS visiting Research Fellow, U.S.A.

Geoff Arger, M.Ed., Assistant Director, DEC, The University of New England, Australia

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**Geoff Arger
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Suk-Ying Wong
Chaiyong Brahmawong
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Aya Yoshida**

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Studies published in the series *New Papers on Higher Education: Studies and Research*:

1. Evaluation Procedures used to Measure the Efficiency of Higher Education Systems and Institutions. A study conducted by: The International Association for Educational Assessment. Coordinator: W.B. Dockrell. UNESCO 1990. ED-90/WS-10 (English only) .
2. *Study Service in Adult Education: Analysis of an Experience*. A study conducted by the Faculty of Education, University of Lujan, Argentina. Coordinator: Sylvia Brusilovski. UNESCO 1990. ED-89/WS-103 (English/French).
3. *L'Enseignement Supérieur et le Monde du Travail*. A study coordinated by Noël Terrot for the World Federation of Teachers' Unions. UNESCO 1990. ED-89/WS-40 (French only).
4. *Africa: A Survey of Distance Education 1991*. A study conducted by the International Council for Distance Education and the International Centre for Distance Learning. Coordinator: Keith Harry. UNESCO 1991. ED-91/WS-42 (English only).
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7. *Asia and the Pacific: A Survey of Distance Education 1992*. 2 Volumes. A study conducted by the National Institute of Multimedia Education, Japan. UNESCO 1992. ED-92/WS-7 (English only).

Note by the Secretariat

The present collection of country papers on Distance Education in the Asia and Pacific region is a detailed and wide-ranging study which confirms the wealth of resources available in this specific geographical area.

The collection complements a survey of resources related to distance learning in the same region. Both have been produced for UNESCO by the National Institute for Media Education, Japan.

This document links to other surveys on existing distance learning resources carried out by UNESCO in Africa, Latin America and on a worldwide basis. In these activities, our partner has been the International Centre for Distance Learning at the Open University, U.K.

At the UNESCO International Consultation on Higher Distance Learning, held at Deakin University, Victoria, Australia from 6-11 September 1987, great importance was attached to the efficient collection and dissemination of information and statistical data. Therefore, the various surveys constitute an effective response to that call for the sharing of resources.

Throughout its long involvement in distance education, UNESCO has accorded priority to components which must underpin the development of these systems of learning: clear policy-making, the pooling of resources, the necessity for a strong infrastructure of personnel to assure academic standards and the need to develop close linkages between higher distance education and the world of work.

If these priorities are observed, distance education can continue to evolve and expand through the design of innovative programmes, experimentation in the uses of advanced technologies and because of its capacity to attract new learners with extremely varied profiles and educational needs.

In view of these challenges, it is hoped that increased information on higher distance education resources, both human and material, will help strengthen the exchange of expertise in this field.

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PREFACE

Distance education in Asia and the Pacific has been 'booming' in the past few decades. In order to respond to increasing demand for highly trained human resources for socio-economic development in the countries in the region, the government of each and every nation has paid special attention to the possibilities of distance learning in higher education. Moreover, rapid technological innovations require continuing education even for university graduates.

Thanks to the contemporary Electronic revolution, w people who are in need of such educational opportunities can have relatively easy access to university teaching by means of broadcasting and telecommunication. It was within this context that the Asian Development Bank, in cooperation with the UNESCO regional office, initiated an intensive seminar on distance education in 1986, the outcome of which was compiled in two volumes.

The National Institute of Multimedia Education (NIME), with a mission of innovating higher education especially with utilization of various media, was more than happy to accept conducting the overall survey of distance education in the region when such a request came from UNESCO in 1990. Though we could work with our colleagues in the area only by correspondence, they were extremely cooperative and eager to participate to make this project successful. On behalf of the Institute, I must express my deepest gratitude and respect to all contributors, without whom this research could not be possible. At the same time, I appreciate the assistance and advice given by UNESCO, from both its headquarters in Paris and its regional office in Bangkok, with whom we have thoroughly enjoyed our collaboration. I also thank the International Centre for Distance Learning (ICDL) of the Open University in the United Kingdom who has provided helpful comments throughout the project. It is our pleasure and honor if this publication can serve to further advance distance education not only in the region but also in other parts of the world.

Hidetoshi Kato
Director-General
National Institute of Multimedia
Education, Japan

INTRODUCTION

In recent years, distance education has emerged as one of the most feasible modes of instruction that aims at bridging many of the educational objectives and practices between the formal and the non-formal sector. For the last decade, distance education has attracted educators and policy makers as a new measure of educational provision. Especially in Asia and the Pacific, distance education institutions and/or programmes have developed rapidly and played an important role. Despite its importance and wide scope of practice in many countries, not enough is known about distance education in this region.

In light of this, UNESCO and the National Institute of Multimedia Education (NIME), Japan have completed this project, "Distance Education in Asia and the Pacific to add to our knowledge of where distance education stands at the present time. We initiated the project by inviting experts to write a case study and to co-ordinate the gathering of questionnaires about distance education institutions in their countries. For various reasons, we could not survey the entire Asian and Pacific area, but through the responses collected here, perhaps a comprehensive picture of the region emerges. The resulting case studies are attributed to their individual authors, while the survey has been compiled by us based on the efforts of the country coordinators and those who completed the questionnaires. Our efforts are therefore presented in two parts. The first part contains the case studies outlining the growth and environment of distance education. The second part presents a compilation of the surveys covering distance education institutions throughout the region.

Regarding the surveys, a few methodological points should be noted. Our primary objective is to systematically organize and present the data based on the information supplied to us by each country. As such, the amount of detail varies. Furthermore, in most cases the entries have been proofread by the participants and some have been subsequently updated. Thus, the information included here is as current as possible. However, the process of compiling questionnaire responses runs the risk of discrepancies. Therefore, we apologize for any errors that might exist.

Our editing policy of the case studies has been directed to presenting a uniformity of style. Aiming at clarity and coherence, this has in some cases required the editing of length. Regardless, we have fully retained each author's individual viewpoints, and hope the integrity of their work remains intact. In addition, we have included all references and citation information provided by the authors, including those which refer to sources in languages other than English. Compiling international references presents a challenge of accuracy due to varying customs of bibliographic format. Interested readers may therefore wish to contact authors directly for more comprehensive citations.

This is only the beginning. We have much more to learn about distance education and its potential in the future. The information collected here will hopefully serve not only as a general reference for people unfamiliar with this innovative mode of learning, but will also inform and inspire those who are involved in planning and decision-making in distance education, as well as administrators, educators, and academics. This work is the result of a collaboration among many experts and practitioners in the field. We thank them for the research they have done and for sharing their knowledge and experience. As pioneers in a young and growing field, we have come far in expanding the horizons of conventional education. By taking a moment to reflect on the past and present of distance education, the insights we gain from sharing our experiences may spur us on to an auspicious and enlightened future.

The Editorial Committee
National Institute of Multimedia
Education (NIME), Japan

SINGAPORE

Gajaraj Dhanarajan

THE NATIONAL CONTEXT FOR DISTANCE EDUCATION

Singapore is a democratic Republic. It became a sovereign, independent Republic on August 9, 1965. Before that it was part of the British colonial empire till September 1963 and after that, a part of Malaysia. It is by all measures a healthy, functioning democracy that has been highly successful economically. Other than a highly skilled and talented population, the island nation of about two million people does not have any natural resources on which to base its economy. Manufacturing and trade are the two mainstays of the market economy and in the last two decades it has established itself as the fourth dragon after Japan, Korea and Taiwan.

The Republic has a parliamentary system of government. The head of state is the President, who is nominated and elected by parliament. The administration of the government is vested in the cabinet headed by a Prime Minister. The cabinet is responsible to parliament, which is unicameral with a membership that is unique as parliamentary practices go. It is made up of eighty-one elected members, six non-constituency members who are selected from candidates who stood for and lost in elections and another six nominated members selected by parliament to represent minority views. The present parliament was constituted in 1988 following a general election.

Parliament passes legislation, approves budgets, questions the administration, debates policy and safeguards the integrity and sovereignty of the state. The two arms of the state viz the judiciary and the executive operate under the ambit of the written constitution. The President who is the nominal head of the executive is supported by the cabinet whose members are appointed by him. The head of the cabinet is the Prime Minister. There are fifteen ministries, each headed by a Minister, that serve the executive. Collectively they are accountable to parliament. The Ministries that make the Singapore cabinet are: Communications, Community Development, Defense, Education, Environment, Finance, Foreign Affairs, Health, Home Affairs, Information and the Arts, Labour, Law, National Development, and Trade and Industry. The Minister and the Ministry of Education have responsibility and jurisdiction on all matters relating to policies and practices of education at the primary, secondary and tertiary levels.

The Republic covers a territory of 620.5 square kilometers. There are also about fifty smaller outlying islands and reefs; but the bulk (99%) of the population lives on the main island.

The Singapore economy is mostly market driven. Natural resources are scarce and therefore the island depends on imports for virtually all its requirements including food, water, consumer goods, raw materials, capital goods and fuel. The island therefore must export on a sufficient scale to generate foreign exchange earnings to pay for the imports, and the volume of exports must grow if the population is to enjoy the current standards of living.

In 1990 the economy saw a growth of almost 8.5%. This growth was spearheaded by the manufacturing sector, with petroleum products, paint, chemicals, and pharmaceuticals

Distance Education in Asia and the Pacific

being the fastest. The financial and business services sector also expanded by about 15%, the commercial sector including hotels, restaurants, and entreport trade grew at about 8.5%, transport and communication at nearly 9% and the construction sector by about 7%. The contribution of primary production to the economy, given the island's location and size did not amount to much. In 1990 it was less than 0.5%.

Current development in human resources is geared primarily to meeting the manpower needs of the Republic and towards this end provisions for and the channeling of participants in education is carefully managed by a government that is extremely sensitive to its competitive edge in the international market place.

TABLE 1: The Manpower Situation in Singapore in 1986*

Occupation Category	Total Number of Persons+
1. Clerical and related workers	180,600
2. Sales workers	155,600
3. Service workers	136,500
4. Production workers	411,000
5. Professional/Technical workers	126,400
6. Managenal staff	68,100
7. Agricultural workers	12,800
8. Others	57,900

* Source: Economic Survey of Singapore, 1986.

+ To the nearest thousand.

Government derives its income through duties levied on a selective group of products, rates or tax on landed property, entertainment, hotel accommodation, income, profits and earnings. It also derives income from various licenses, sale of land and investments. In 1990 the total government revenue was SG \$16,425,000. In that year government expenditure was SG \$9,037,000. Of this SG \$1,791,000 or 19.8% was allocated to education. Besides direct government support for education there were also other sources of funding for worker training, retraining, and upgrading, supplied by industry, businesses, trade unions and voluntary agencies.

In 1990 the population of Singapore was 2,690,100. It is basically a Chinese society with the non-Chinese races making up 22.3% of the population. The male to female ratio is roughly 1:1. Singapore is aging albeit slowly. Of the 2.6 million people about 31% are under nineteen and 9% above sixty. The remaining 60% are the productive part of the population. The literacy rate in Singapore is among the highest in South East Asia. A large proportion of the population has the capacity to use at least one of the four official languages at more than functional levels.

Language of Instruction

Singapore has four official languages. These are English, Chinese (Mandarin), Malay and Tamil. All four are also used for social, commercial and educational purposes as befits a multi-ethnic and cultural society. However, for pragmatic reasons academic instruction is

provided only in English at the tertiary level, in English and Mandarin at the upper secondary school level and in all four languages at the primary school level. Separate schools are established for each language stream. Children are given the choice of instruction at the primary level and in a society driven by market forces, inevitably English and Chinese are the most popular.

Education System

Singapore places a high premium on education. It is also a much debated political issue. The nation invests a substantial portion of its resources on educational activities. It is a vehicle for nation building. There is available today compulsory primary education and almost universal access to secondary education, at no or low cost. Access to higher education is selective and merit based.

There are, currently, 200 primary schools, 129 secondary schools, fourteen junior colleges and four centralized pre-university institutions in the country. The total enrollment in these schools was about 460,000 in 1990 and serving these half a million students are about 20,000 teachers. Besides these, some 17,000 young people attend full time training at the colleges and associated centres of the Vocational and Industrial Training Board.

Before children enter formal schooling on or just after their sixth birthday, many would have enrolled in kindergartens in courses that would vary from one to two years.

Formal primary education begins when a child is six years old. This phase of schooling lasts for six years. The curriculum is broad based. Literacy and numeracy are emphasized, as is moral education. The curriculum is common to all schools and achievement is measured by a Primary School Leaving Examination (PSLE). On the basis of performance in this examination, streaming into secondary school takes place.

Secondary education has three streams. Performance at the PSLE will determine the stream in which a student is placed. The three streams are Special, Express and Normal. Special and Express students prepare for the Singapore School Certificate Examination in four years. Students in the Normal stream take four years to do an ordinary level examination and if successful are allowed to proceed to a fifth year for the Singapore School Certificate Examination.

Successful completion of secondary education is a ticket to pre-university studies. Competition is extremely tough in this sector. Once again two options are available. High achievers can look forward to a two year programme in one of the fourteen junior colleges and the others will have to compete for a place in one of four centralized institutes where they will take three years to complete the pre-university courses. Both two and three year cohorts sit for the Singapore Advanced Level Examination. Students who perform well in these examinations compete for places in the two universities of the nation.

There are other post secondary, non university educational opportunities available to young people. Pupils interested in pursuing technical and vocational skills can continue their post primary studies in technical schools, which also have a five year curriculum leading up to technical certification. Those who do not wish, or fail, to enter pre-university programmes can seek admissions in the four polytechnics of the nation. The polytechnics offer three year programmes leading up to diploma level qualifications in business, technology and other engineering fields.

Teacher education in Singapore is provided by the Institute of Education and the College of Physical Education. Both these separate entities were merged in 1991 to become the National Institute of Education. This is an independent establishment under the umbrella of one of the universities in the Republic. The student population of the National Institute of Education in 1990 was 3,586.

Technical education at the diploma level is provided by four polytechnics. They are the Singapore Polytechnic, Ngee Ann Polytechnic, Temasek Polytechnic and the Nanyang Polytechnic. The first is the oldest and the last the youngest. In 1990 some 16,000 students were studying a variety of courses in these institutions.

There are two universities in Singapore. The first and the oldest is the National University of Singapore. Its history dates back to 1905; the second is the Nanyang Technological Institute which was set up in 1981. Together the two institutions cater to undergraduate and postgraduate studies. In 1990 there were some 24,000 students studying in these two institutions.

TABLE 2: Enrollments in Educational Institutions in 1990

Type of Institution	Enrollment
Primary	257,757
Secondary	189,756
Vocational	026,468
Crafts	002,634
Tertiary	043,413

Singapore is well provided with communication infrastructure for internal and external linkages. It is a hub for regional air and sea services. Road and rail services link the various parts of the island nation effectively and efficiently. There are good public transport facilities. Postal services operated by the government are efficient and in recent times courier and mail services by proprietorial companies have been added to this provision. The telecommunication services are efficient. Penetration of telephones into the population is among the highest in the world. In 1990 an estimated 1,000,000 telephone lines served the population with about thirty-seven telephones per 100 people. There are more than 319,000 pagers and another 45,000 sets of mobile telephones. Facsimile transmission facilities are also increasingly popular. Advanced interactive videotext systems are being put in place as well.

The mass media includes eight daily newspapers, nine radio channels, and three television channels. Ownership of television, video tape recorders and radio receivers is very high. Some 600 licensed printing establishments service the nation.

HISTORY AND BACKGROUND

The level of current educational provision in Singapore is now very high. Adult education opportunities are also extensive. Given the compact size of the territory, ease of

communication, and public provision for training and re-skilling, participation rates in these programmes are also among the highest in Asia. All of these activities are mostly supported by public funds. They have been and are being conducted in traditional style, which by and large fits with the perception of people on matters of education.

Until very recently, educational planners in Singapore did not see a need to make provision for either an open or distance education system for the island. All levels of education were easily available to the population, and drop-out rates in schools were minimal due to an efficient streaming system that placed individuals in channels appropriate to their demonstrable abilities, therefore access to self-paced distance education was not necessary.

While there has been a lack of distance education provisions through the public sector, the private sector has been active in facilitating self-paced learning for a very long time. The history of proprietorial distance education goes back to the late 1940's in Singapore. At least two major business houses have been involved in providing correspondence tuition for the University of London (external) degree programmes in Law, Arts, Economics, Divinity, Mathematics, Statistics and English. Home study courses by off-shore organisations using Singapore agents have also been available to Singaporeans, with emphasis on career, technical and vocational fields. Most of these programmes would not be considered as distance education as defined in this study, though. In addition, statistics are generally not available or difficult to come by because of the business nature of such provision. However the existence and survival of such businesses over a fifty year period seems to indicate a sustained interest by the population for such provisions.

From the mid-eighties onwards a new kind of distance education provider has emerged in Singapore. Driven by economic necessities and a perception of market opportunities, a number of British and Australian universities have been delivering their courses in Singapore using self-paced learning materials. These materials were mostly driven by print but they also contained audio and video elements and correspondence tuition. Occasionally tutorial support was also provided by the institutions using local or foreign academics. The fields of study were limited to areas such as Business Studies and Arts. Levels of study were at the first degree level except in Business where MBA programmes were available. In 1990 more than a dozen universities and polytechnics have been active. Some of them are the Universities of Warwick, Hull, Starthyclyde, Brunel and Cranfield from the United Kingdom; and the Universities of Macquarrie, Southern Queensland, Edith Cowan and Charles Sturt from Australia. Student and course statistics are not available for these initiatives.

Concerned over the proliferation of distance education activities by overseas tertiary institutions and sensitive to the learning needs of its young adults, the Government of Singapore embarked on two major distance education initiatives in 1989. The first involves the training of working adults in basic numeracy, literacy, management and supervisory skills. The National Productivity Board is the home of this initiative. The programme is called Fast Forward and Learning. The second involves the setting up of the Singapore Open University. The planning of the University has been vested in the Ministry of Education.

The National Productivity Board of Singapore has the mandate and responsibility to improve the intellect, talent, skills and enhance the productivity *of* Singapore workers, supervisors, managers, industries and businesses. Set up by the Government of Singapore in 1972, the Board undertakes the task of improving the knowledge and skills of workers to prepare them for higher skilled and more value added jobs. The Singapore workforce is

made up of about 1.3 million workers of various educational levels. Table 3 captures the educational profile of the Singapore workforce in 1986.

TABLE 3: Educational Profile of Workforce, 1986

<u>Qualification</u>	<u>Percent of Workforce</u>
Below Secondary	52.5
Secondary	30.5
Above Secondary	17.0

Source: Labour Force Survey, Singapore.

Worker improvement is conducted through short courses in specialized institutions, the Vocational and Industrial Training Board, specialized institutions in collaboration with foreign technical institutions and companies, and through the Board's own training section. Some of the major initiatives have gone by the names of MOST (Modular Skills Training Programme), BEST (Basic Education for Skill Training), and WISE (Worker Education through Secondary Education). All of these programmes are classroom based. In order to assist people who have difficulty attending classroom instruction for one reason or another, Fast Forward and Learning was developed. Currently some four self-paced learning courses are offered via television.

Encouraged by the role of open universities in a number of countries, the Government of Singapore announced the start of the Singapore Open University (SOU) in mid-1991. The SOU will be designed to "give a second chance to working adults who have missed out on a degree bearing education earlier in life and who now find it difficult to give up their jobs in order to study full time." The SOU will have the same status as other universities in the territory with its own autonomy and government. The proposed start up date of the university was expected to be 1993.

THE LEGAL STATUS OF DISTANCE EDUCATION

The National Productivity Board where the Fast Forward and Learning project is located is a semi government, self governing autonomous body. Its legal status is protected by an Act of Parliament. All of the training activities it undertakes has the support of not only government but also the business and industrial sector of Singapore. The Singapore Open University when it is set up will have necessary legislation in place, giving it the same status as the other two degree granting institutions of higher learning in Singapore, viz., the National University of Singapore and the Nanyang Institute of Technology. Universities in Singapore, similar to their counterparts in other parts of the Commonwealth of Nations are basically self governing autonomous agencies permitted by law to develop the rules and regulations governing their behavior.

OVERVIEW OF THE CURRENT SITUATION

Aims and Objectives of Distance Education

Since the Singapore Open University is still in its planning stage, the rest of the paper will describe the development of the Fast Forward and Learning project of the National Productivity Board and indicate the planning directions of the Singapore Open University.

The Fast Forward and Learning project has three main objectives: to promote the economic development of Singapore through worker education; encourage life-long learning; and build a cohesive, united and articulate society.

The Singapore Open University is expected to fulfill the national aims of providing a second change for intellectual or career development to all those who missed out on higher education for one reason or another. When the University is established, more specific short and long term objectives can be expected to emerge.

Control, Organization and Management

The Fast Forward and Learning project is located at the National Productivity Board. Its head is the Director of the project. The Director reports to the Minister of Trade through the Board of Directors who manage the affairs of the National Productivity Board. The Board of Directors is composed of representatives from government, industry, chambers of commerce, business, and academia.

The proposed Singapore Open University will report to government through the Minister of Education. In fact recent press reports in Singapore indicate that one of the two State Ministers of Education will be the Vice Chancellor of the University. Vice Chancellors are normally the chief executives of Universities in Singapore. The Vice Chancellor will report to the Council of the University which is also the supreme policy making body of the Institution. Council is made up of academics, civil servants and community leaders. Academic programmes, regulations, rules and practice are formulated and established by the Academic Board of the Institution which is also called the Senate. The structure of the SOU has not been established yet.

Financing Distance Education

The Fast Forward and Learning project is funded by development grants from the government through its various worker training and reskilling schemes. Approximately US \$10 million was spent on the project in 1990. The money was used for the development of the materials and for the support of project personnel. Indirect costs such as salaries of core personnel, space, communication, travel, stationary etc. is paid for by the National Productivity Board.

The Singapore Open University is expected to be funded by the government of Singapore. No figures have been published yet to indicate the level of funding.

Geographical Coverage

Both the Fast Forward and Learning project and the proposed Singapore Open University are meant for Singapore nationals and therefore the coverage of the programmes is confined to the territories of Singapore.

Instructional Systems

The Fast Forward and Learning programme is video driven. Accompanying the video are printed, audio and audio graphic materials, as well as an intense tutorial support system. Tutors are assigned to students and they work with them at sites as diverse as factory floors and community halls. Tutors are trained and provided with instructional material for classroom environments. Assessment is essentially formative. Learning materials are developed by the use of contract developers who follow the curricula and instructional design of the project managers.

The Singapore Open University is expected to be a secondary rather than a primary producer and user of learning materials. Initial plans seemed to indicate the acquisition of course materials from the British Open University en bloc and deliver them in Singapore with minor adaptation. There is an indication that the University will, however, design its own programmes and not use the British system of examinations and awards.

Research Activities in Distance Education

To date there is no evidence to indicate any research activities in the field.

Enrollment in Distance Education

Since the start of the Fast Forward and Learning project some 15,000 workers have gone through the system. Annually some 2,500 new students register in the programmes. To date about 4,000 students have graduated. It is expected to graduate at least 2000 students every year during the next few years. Student surveys indicate that about 80% of the students are aged between twenty-one and forty years old, less than 1 % is below twenty and not more than 2% above fifty. Regarding occupation, at least 50% are either professionals or administrators and about 13% are in production and manufacturing. The balance are distributed in a variety of trades and skills. The Singapore Open University expects to enroll students above twenty-one years of age.

International Affiliation

No international affiliations have been registered yet.

Growth and Expansion

The National Productivity Board is expected to expand its worker education programmes. Distance education or self-paced learning through the use of communication technologies can be expected to be used extensively. Current programmes are expected to double in the next few years. The Singapore Open University proposes to enroll about a thousand students a year.

Problems and Issues

It is difficult to make predictions about something as new as distance delivery of knowledge in a compact and educationally well provided society like Singapore. Challenges that the systems will face will include learner acceptance of this mode of learning, staffing and management.

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Cook Islands, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu and Western Samoa.

Claire Matthewson

The focus of this paper is wholly on USP and the distance education which it has developed to serve twelve Pacific countries lying within the area extending approximately W. 155° - E. 150° longitude, S. 25° - N. 17° latitude. These are the Cook Islands, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu and Western Samoa.

USP is a regional university and, as such, a type rare in the international community. It is regional not just in outlook, programmes or staff but in its operational structure: financial, physical, political and academic. USP is owned by twelve Pacific countries which, as proprietors, exercise collective governance.

The point to be made at the outset, therefore, is that USP does not only exist, like all institutions, within a broader, regional context; it is, more importantly, the region's planned creation, an institution *of* it, as a legally established entity.

USP, after two years of formal operation, was established by Royal Charter in March 1970 in accordance with the wishes of eleven island states, Cook Islands, Fiji, Kiribati and Tuvalu (formerly Gilbert and Ellice Islands), Nauru, Niue, Solomon Islands (formerly British Solomon Islands Protectorate), Tokelau, Tonga, Vanuatu (formerly New Hebrides) and Western Samoa. In 1991, the Marshall Islands joined the USP consortium, thus extending the University's membership to twelve countries. The major part of its recurrent budget is provided by its twelve regional proprietors. It maintains two Campuses (in Fiji and Western Samoa), two Complexes (in Vanuatu and Tonga), and ten in-country Extension Centres. The land and these physical facilities are provided to the regional entity by each of the respective member governments.

Its student body is largely regional - Polynesian, Melanesian, Micronesian and Indian - and, in the main, determined by government scholarship systems. By 1985, 60% of its staff were regional citizens.

From its inception, the University was conceived as a dual-mode teacher and, as such, has pioneered in the field of distance education delivery.

REGIONAL CONTEXT

All member countries, with the exception of the Republic of Nauru, have aid-dependent or at least aid-augmented economies. Sources, levels and applications of bi-lateral aid vary from country to country and even from time to time.

TABLE 1: Income and Percentage (%) Education Expenditure

Member State	GDP per capita (AS)	Education % of Budget 1990
Fiji	2440	16.2
Solomon Islands	790	7.2
Western Samoa	901	11.0
Vanuatu	1266	20.0
Tonga	865	17.9
Kiribati	489	18.4
Cook Islands	1822	10.0
Nauru	N/A.	70
Tuvalu	450	16.8
Niue	1490	9.0
Tokelau	N/A.	22.3

Source for Column 1: *South Pacific Economies Statistical Seminary*. The dates for GDP range from 1953 to 1986.

It is not possible, on the basis of publicly available data, to separate out the distance education percentage of the respective national budgets from their overall education expenditure. The percentage Education Vote does include each country's contribution to the USP recurrent budget, but this in turn includes undifferentiated funding for the aggregated FTES of both on-campus and distance students. Moreover, separate from some of the percentages cited in some countries, there is varying and indirect external support of distance education by way of bi-lateral aid (funding for local tutors, third country scholarships and equipment); employer assistance with fees; and professional promotion incentives.

TABLE 2: Current Development at Senior Secondary School Level

Member State	Schools with Form 6 (yr 12)	Schools with Form 7 (yr 13)
Fiji	82	28
Solomon Islands	4	-
Western Samoa	18	1 (1)
Vanuatu	2	1 (2)
Tonga	14	2
Kiribati	3	1 (3)
Cook Islands	3	1 (3)
Nauru	1 (4)	-
Tuvalu	-	-
Niue	-	-
Tokelau	-	-

Distance Education in Asia and the Pacific

1. Offered by National University of Samoa, using some adapted USP Extension materials
2. USP Extension Programme based at USP Extension Centre
3. USP Extension Programme based in secondary school
4. Available, but DO students enrolled in 1991

Tables I and 2: 1989 Data from *Statistical Yearbook for Asia and the Pacific*

TABLE 3: Ethnic Composition by Region

	Population (000)	Major Ethnic Group(s)	Density Pop. Per Km2
Fiji	727	Melanesian, Indian	39
Solomon Islands	314	Melanesian	10
Western Samoa	163	Polynesian	53
Vanuatu	154,7	Melanesian	9
Tonga	103	Polynesian	146
Kiribati	68	Micronesian	88
Cook Islands	17,9	Polynesian	74
Nauru	8,8	Micronesian	387
Tuvalu	9	Polynesian	283
Niue	2	Polynesian	10
Tokelau	1,6	Polynesian	-

TABLE 4: Life Expectancy Rate by Country

	Live Births per 1000	Deaths per 1000	Infant mortality	Annual growth %
Fiji	25,9	5,0	26,0	1,1
Solomon Islands	43,8	-	72,0	3,3
Western Samoa	32,8	7,0	49,0	0,6
(figures only for Samoa)				
Vanuatu	40	7,5	53,0	3,3
Tonga	30,4	7,2	-	3,9
Kiribati	32,9	12,9	107,0	-0,3
Cook Islands	23,7	4,9	24,7	1,1
Nauru	-	-	-	1,5*
Tuvalu	-	-	-	12,5 (1989/p)
Niue	25.2 (1988)	6.4 (1988)	-	11,3 (1989)
Tokelau	-	-	-	-

* Figure taken from United Nations Population Chart 1990 (revised)

TABLE 5: 1990 Data from United Nations Population Chart

	Life Expectancy at birth 0 - 4 65 +	Pop %	Pop %
Melanesia (includes Fiji, Solomon Islands, Vanuatu)	46	15	3
Micronesia (includes Kiribati, Marshall Islands, Nauru)	65	12	4
Polynesia (includes Cook Islands, Tonga, Tuvalu, Western Samoa, Niue, Tokelau)	71	15	4

The linguistic profile of the USP region is complex. The estimated number of languages in current use is approximately 265.

Cook Islands - The students are generally bilingual, speaking Cook Islands Maori and English. (Cook Islands people hold New Zealand citizenship.) Schools are taught in both languages.

Fiji - The Bauan dialect is the most widely used of the Fijian tongues. The majority of Indians speak Hindi. English is the official language, however.

Kiribati - English is the language of official communication but the Kiribati language, a Micronesian dialect, is the lingua franca.

Marshall Islands - Marshallese is the official language, belonging to the Malayo-Polynesian language family. Quite distinct or different dialects are spoken on different islands. English, because of United States administration, is widely spoken also.

Nauru - Nauruan is the local language, widely spoken. As a written language, it has lost its currency. English is used for all written communication.

Niue - Niue students are generally bilingual, speaking Niuean (which is a Polynesian language closely related to Tongan and Samoan) and English (because of close ties with New Zealand and their dual-citizenship).

Solomon Islands - Although English is the official language, the lingua franca is Pidgin. Approximately 87 different dialects are spoken. There is no common vernacular.

Tokelau - Tokelauans speak a language similar to Samoan and Tuvaluan. English is taught as a second language.

Distance Education in Asia and the Pacific

Tonga - Tongan, universally spoken, is a dialect of Polynesian. English is also spoken generally as a second language.

Tuvalu - Tuvaluan is a Polynesian tongue, similar to Samoan. On the island of Nui, a Gilbertese dialect is spoken. English is also used.

Vanuatu - The national language is Bislama, Vanuatu Pidgin. The official languages are Bislama, English and French. It is estimated, however, that approximately 115 languages are spoken in Vanuatu. Post primary schools are Anglophone or Francophone.

Western Samoa - The national language is Samoan, a Polynesian tongue. Although English is widely spoken and the official language in the Public Service and commercial sections, rural and older Samoans do not usually speak it well.

The education systems of USP's twelve member countries are generally separate, different and autonomous. Preceding a brief outline of each, however, some random points of interest can be made as follows:

The education systems tend to reflect colonial/missionary history. This means that a British derived model is prevalent; that Nauru, Vanuatu and the Marshall islands are rendered unique, in different ways, within the consortium of countries.

The Marshall Islands for historical reasons will be the sole provider to USP of students educated within a North American model (Grades one through twelve, curricula and standards, and a September - June teaching year). Vanuatu, once governed by both Britain and France, administers two quite separate education systems: an English-based model and a French-based model. Nauru, from former association with Australia as one of its Trustees, alone within the region follows the State of Victoria curriculum and assessment.

Some member countries' systems have had common external assessments such as the New Zealand School Certificate Examination (Form five or Year eleven), and the New Zealand University Entrance Examination (Form six or Year twelve). Some currently share subscription to the New Zealand Bursary Programme (Form seven or Year thirteen).

Since the abolition of the University Entrance Examination within New Zealand, countries which formerly used it have adopted either the replacement Sixth Form Certificate model or the Pacific Senior School Certificate, an assessment designed specifically for the region's schools. Fiji as one exception has developed its own National Sixth Form assessment (the Fiji Leaving Certificate).

The South Pacific Board for Educational Assessment (SPBEA) has been established as a regional body, providing professional consultancies to governments on assessment matters and overall standards monitoring/moderation for the south and central Pacific.

In Fiji, education is not compulsory but 98 % of primary age children attend school. Education is free or partly free, with remission of fees for low income families. In 1985, there were 668 primary schools, 139 secondary schools and 42 technical/vocational institutions. The majority of schools are government supported in some way but are committee-run, not state schools. Tertiary institutions include the Fiji Institute of

Technology, the Fiji School of Medicine, the Pacific Theological College, the Fiji College of Agriculture, Fulton Missionary Teachers College, Fiji School of Nursing, Fiji College of Advanced Education, Lautoka Teachers College, the School of Maritime Studies and the Telecommunications Training Centre.

In the Solomon Islands, approximately two-thirds of children have access to schooling. There are 423 primary schools run by Provincial Assemblies and fifty-four run by the churches. Provincial Secondary Schools, of which there are twelve, offer vocational training; National Secondary Schools, of which there are eight, offer academic training (in four this extends to Form six). Tertiary institutions include the Solomon Islands College of Higher Education, the Honiara Technical Institute and the Telecommunications Training Centre.

In Western Samoa, a tripartite system of primary, intermediate and secondary schools operates in Western Samoa. Instruction within the primary school is given in Samoan. Tertiary institutions include the Technical Institute, the Primary Teachers College, the Secondary Teachers College and the National University of Samoa. The last provides the only local Form seven or Year thirteen education and also offers degree programmes.

In Vanuatu, in 1984, there were 140 primary and seven secondary schools (English), and 104 primary and three secondary schools (French). The national language, however, is Bislama/Bichelamar. Tertiary institutions include a School of Nursing, and an Agriculture College. A Teachers Education Centre within the Vanuatu Institute of Education provides training for primary school teachers, using both English and French as the media of instruction. Secondary teachers are trained overseas. The Vanuatu Technical Institute is predominantly a French-language institution.

Tonga's education is compulsory at primary level and is provided free between the ages of six to fourteen. Primary education has been compulsory in Tonga since 1876. Of the 118 primary schools (1986), 100 are government schools. Tertiary institutions include the Institute for Vocational Education and Training, the Maritime Polytechnical Institute, the Teachers College, Queen Salote School of Nursing, the Tonga Police Training School, Sia'atoutai and Pierson Theological Colleges, Mango Agriculture College, a Rural Training Centre for men and a Technical College for women. The Atenisi Institute confers degrees. In Kiribati, government policy is the provision of compulsory and free education from Classes One through Seven (primary). There are 110 government primary schools and six secondary schools (three of which offer Form Six and one of which offers Form Seven). Tertiary institutions include the Tarawa Teachers College, Tarawa Technical Institute, a Marine Training School and a Theological College.

On Cook Islands, education has been compulsory and free between the ages of six to fifteen since 1966. Schools use both English and Maori as the language of instruction. There are thirty-eight schools, including nine colleges, twenty-six primary schools and a Teachers College. Institutions are government, Roman Catholic and Seventh-day Adventist Mission operated.

In Nauru, education is compulsory and free between the ages of six to sixteen. Government schools include five infant schools, two primary and one secondary. Church schools number one of each category. English is used as the language of instruction (except in the Location School for children of the Phosphate Company workers). An Australian curriculum is followed and selected children are sent to Australia and New Zealand from the upper primary level for further education. A Trade School offers vocational training.

Absenteeism at all levels is high. Most tertiary level students study in Australia, although some go to Papua New Guinea, Fiji and New Zealand.

In Niue, education is compulsory and free between the ages of five to fourteen. In 1983, there were seven primary schools and one secondary school. All are Government institutions. At Form Seven and tertiary levels, students go mainly to New Zealand, although some go to the Solomon Islands and Fiji.

In Tokelau, primary education is available to all children and is New Zealand assisted. Attendance is almost 100% and schooling is free. Children generally attend primary school from the ages of five to fifteen. Education is aimed at preparing children for life in Tokelau or a career in New Zealand (of which Tokelau is a non self-governing territory).

Communication systems - their efficiency/non-efficiency and even their existence/non-existence - are the most important (because problematical) features of distance education in the Pacific. In its regional endeavours to bridge teacher/learner distance, USP runs the gamut of all system and policy obstacles in each of the countries. Communication services (including transport systems) are critical features of distance education in the Pacific region. Services which may be taken for granted in other regions - as being comprehensive, reliable, affordable and frequent - cannot be taken for granted even on a weekly basis. Given the immutable vastness of the student catchment area and the multiplicity of service providers (both national and international), the challenges of communications and transport abate neither with time nor money.

Between the Campuses, Complexes and Centres, communication and information transfer is effected mainly by USPNET (using INTELSAT), facsimile, telephone, and mailbags.

USPNET: USP pioneered the use of satellite technology for educational support, beginning in 1972 on ATS-1. This was a PEACESAT enterprise, in which USP's participation was assisted by NASA, the Carnegie Corporation and USAID. After the gradual demise of ATS-1 between 1981-85 and some years of preparatory negotiation, USPNET was re-established on INTELSAT in 1986, first under the Project Share agreement and later with major support from Cable and Wireless Public Ltd (Hong Kong).

Currently, USPNET connects ten of the twelve member countries. Five Centres have direct access to the satellite space segment: Tonga, Vanuatu, the Solomon Islands, Fiji and the Cook Islands. (The Kiribati Centre, formerly part of USPNET, was disconnected in 1989 due to local charging policies which could not be afforded.) Five other countries access USPNET on HF Radio relay: Nauru, Niue, Tuvalu, Western Samoa and Tokelau. International carriers supporting the network are Cable and Wireless Public Ltd, Fiji International Telecommunications Ltd (FINTEL) and Telecom New Zealand. The national carriers which facilitate the ground station services are Telecom Cook Islands, Fiji Post and Telegraph, Solomon Islands Telekom, Tonga Telecommunications Commission and Telecom Vanuatu. All of these autonomous providers are parties to the network agreement with USP. Any changes to contract conditions would require re-negotiation with each party.

The network is heavily used for administrative purposes, on a schedule of weekly meetings in specific areas: Extension Studies, Continuing Education, mailbag despatch and receipt checks, and Directorate sessions with Centre Directors. It is used regularly but less heavily for regional tutorials. As a half-duplex system, with often poor quality reception

from the HF Centres, it is not overwhelmingly attractive to many members of academic teaching staff.

Being a dedicated network, USPNET is also available for point-to-point communication at any time of the week between scheduled meetings/classes. The system's virtues are undeniable, technically linking staff with staff and staff with students. It maintains in addition a sense of community within constituent isolation which might otherwise be overwhelming. Without it, USP would be bereft, in both practical and morale terms.

Without gainsaying this, it must be noted, however, that USPNET currently gives cause for much concern. This has both technical and political bases. Matters of concern include the following:

The current USPNET agreement expires in 1992. Under it, the national carriers of five member countries and three international carriers agreed to provide, respectively, ground station services and space segment access. Since the agreement was forged, however, several providers have become privatised or corporatised. USP cannot be certain, therefore, that the present arrangements will be able to continue beyond 1992, or will continue at a new cost that could be afforded. It is hoped that the 'loss' of Kiribati will not prove to be a precedent.

Between the local ground stations and the USP Centres, use of local P&T lines is necessary. These vary in reliability and local maintenance. Centres can be off the network for weeks at a time. In the five countries where ground station services have not been made available to USPNET, the reasons are either technical or a matter of local policy. The HF radio option adopted for these countries is certainly better than nothing but frequently unsatisfactory. USPNET's greatest need is for full duplex, interactive facilities. Given that the present generous concessional rates for a half-duplex system are all that can be afforded, pricing policies for full facilities are likely to be prohibitive.

Facsimile services between the main campus and the regional Centres became comprehensive during 1991. (Until then, the lack of available circuits in some countries had delayed connection). Facsimile is very heavily used for communication between Extension Services and its outlying staff, taking up a considerable proportion of two Communication Assistants' time. Services are by and large reliable but not wholly so. Three countries in particular experience occasional transfer-loss (Vanuatu, Western Samoa and Kiribati). Local charging policies relating to international transmission (which all facsimiles are from USP Centres) precludes frequent use by the Kiribati staff. In two countries, the Centre telephone and the facsimile machine must share the same circuit.

Telephone facilities are comprehensively available between the main campus and the Centres but are not so heavily used as facsimile facilities. This relates not only to the often detailed nature of information to be conveyed but also to the unreliable quality of voice-circuits, and to voice send/receive delays.

The system of USP mailbags was introduced in 1976 as the more reliable alternative to normal postal and air freight services. The mailbags to and from each Centre to Extension Services Headquarters are despatched weekly using a multiplicity of carriers. These include Air Pacific, Air Nauru, Samoa Air, Solomon Islands Air, Air Vanuatu, Air New Zealand, Air Marshall Islands. Weekly mailbag checks are undertaken via USPNET, tracking safe receipt and the lost or off-loaded despatches. The latter are a continuing difficulty on some airlines because of limited carriage space and competing cargo.

A slow scan electronic mail system, sharing the common satellite channel, is also being gradually introduced. To date, however, only the Solomon Islands and Vanuatu have been connected, due to funding and technical difficulties.

There is, also, in the advanced planning stages an intention to establish during 1992 a computer network linking the regional Centres to the on-campus Student Records and Finance databases. This is intended to be effected by Banner software and funded from New Zealand aid. The actual means of the data transfer is proving to be problematical, however, given that not all Centres have direct access to the satellite and use of telephone circuits cannot be guaranteed.

Materials transport is mainly effected by the mailbag system, in accordance with the following conditions. Individual materials-items must: not exceed a monetary value of F\$50.00 (a carrier-specification); not be toxic or potentially hazardous; and not (for obvious reasons) exceed the mailbag's capacity. There are no weight restrictions. Materials which do not comply with these conditions are transported in whichever of the following ways is most appropriate: by normal postal services; by courier; as air cargo; as sea cargo; or as hand carried or accompanied baggage. It is worth noting, perhaps, that at particular times of the year (such as those coinciding with heavy tourist traffic or food shortages), shipping services can be more reliable than air services to some countries; that, because of frequent staff travel to member countries, the hand carried/accompanied baggage alternative is used as much as possible for examination script and equipment transportation.

The countries of Niue and Tokelau deserve a special mention, neither being serviced directly between itself and Fiji. Mailbags to and from Niue must be despatched through Western Samoa (Air Pacific) and thence (Samoa Air) to American Samoa and Niue. Alternatively, they can be despatched to Nadi (Air Pacific) and thence to Auckland (Air Nauru) and on to Niue (Niue Airlines). Tokelau materials must be transported initially to Western Samoa, out of Nadi. Thereafter, carriage must be effected by a shipping service which operates only once a month. Transport of materials in and out of Tokelau (including assignments and examinations) can be effected only on this monthly basis. All of the preceding information about communication and transport systems applies only to the primary (or easier) legs: those between services on campus and the in-country USP Centre. The latter in all cases is located in the main town on the main island/atoll.

The more difficult but equally important communication/transport links to be sustained are those which lie between the national Centre and the outlying islands and atolls. For a Centre which has ninety-five or sixty-six or thirty of these which are populated, the challenges are obviously formidable. A few islands might be serviced by a domestic airline; some others might be serviced by a small shipping agent. Some might have neither on a regular basis; there will be even some that have no telephone facilities. All of these vagaries must be accommodated as far as possible and planned for, without any degree of institutional control. Where available, the domestic air and boat services are utilised and relied upon. In-country HF and national broadcast radio are also available in some instances. In two countries - the Solomon Islands and Kiribati - the Centres are involved in the planning and establishment of in-country teleconference systems. Both ventures will be supported by externally negotiated funding. For some outlying communities, however, little can be done until the national communication and transport carriers develop more comprehensive systems.

For a distance mode teacher in the south and central Pacific, the distance learner's profile is perhaps the most important feature of Regional Context that he/she needs to know.

An understanding of that profile brings one closer to knowing the region. The students will probably be male, unlike the majority of distance learners in developed countries. (Female enrollment overall is 30%.) They will probably, nonetheless, be seeking first-chance training. The language of instruction might not be their first language. It will usually be their second and sometimes third. They will likely be the product of an education system not fully endowed with qualified teachers, adequate physical resources and strong preparatory programmes. Their profile will vary somewhat in relation to their home-country. They will probably have left school several years earlier without the formal qualifications for university admission. (Full secondary school programmes and easy access to them are still not available for the majority in the region). They will likely have many commitments, financial and of time, to Church, family and village community. They may possibly, before enrolling in courses of ultimate choice, need to undertake upper school level courses in English and/or Mathematics. (USP through Extension, still teaches Forms Six and Seven). They cannot be presumed to live near the local USP Centre, or a frequent airline/boat service for the transport of materials. Fortitude aside, they cannot be presumed to have access to resources other than those provided in the teaching/learning package. They cannot be expected to afford expensive materials, to meet the full costs of the chosen USP course, or to own or have access to technical equipment. The average rate of attrition is around 30%, due, in the main, to external factors. (These usually relate to employment or to materials-transport delays). Study through USP Extension is often their sole higher learning option.

HISTORY AND BACKGROUND

The University of the South Pacific was established on the recommendation of a Higher Education Mission to the South Pacific which reported in 1966. The Mission was set up by the governments of the United Kingdom and New Zealand, with the cooperation of the Australian Government. It was chaired by Sir Charles Morris and had the purpose of ascertaining the viability and appropriate character of a university which would serve the needs of the region.

Sir Norman Alexander was subsequently appointed Academic Planner to the proposed institution and, in this capacity, consulted key personnel throughout the region for their responses to the Morris Report. The Alexander Report of early 1967 provided both an affirmation and some refining of the Mission's essential concepts and proposed ways in which these could be practically realised in a Pacific regional university.

By mid 1967 the Legislative Council of Fiji had approved an enabling Ordinance for the establishment of an Interim Council. At its January 1968 meeting, the Interim Council appointed the University's first Vice-Chancellor, Dr. Colin Aikman, Professor of Jurisprudence and Constitutional Law from Victoria University of Wellington.

The regional University for the South Pacific was established at Laucala Bay, Suva Fiji, on the site of a vacated Royal New Zealand Air Force flying-boat base. The first students were admitted in February 1968. After an initial period of two years, the University was formally established in March 1970, by Royal Charter.

University Centres (with their running costs initially funded by the Carnegie Corporation) began to be established the following year. Those in Honiara (Solomon

Islands), Tarawa (Kiribati) and Nuku'alofa (Tonga) were the first, in 1971. The Rarotonga Centre (Cook Islands) and the Apia Centre (Western Samoa) followed in 1975. One year later saw the establishment of the Centre in Suva, followed in 1977 by the Centre in Niue. The Vanuatu Centre in Port Vila and the Tuvalu Centre in Funafuti were both established in 1980 and most recently Nauru in 1986. Capital expenditure on the Centres during this period of two decades has been financed bilaterally by the governments of Australia and New Zealand. (Tokelau is served through the Western Samoa Centre. The Centre for the Marshall Islands will be established in Majuro during 1992).

The many factors which contributed from the outset to a commitment to regional distance education from this new university can probably be reduced to a few: USP was established to serve an area three times the size of Europe, with a diameter one sixth of the earth's circumference. Clearly it would need to spread itself in new and dramatic ways to reach much of its market. Much needed higher education in many vital areas had traditionally to be sought outside of the region in developed world countries. As such it was accessible to relatively few people. The conventional option of full-time internal study (which would also have to be residential for many students) was not an appropriate singular response to the needs of a region in which existing education systems still amounted to variants of under-development and which generally had a low capacity to provide for expenditure on higher education. Bridging study, part-time study, and home-based study while retaining employment were (and continue to be) appropriate other responses.

The University began with three On-Campus Schools: Natural Resources, Social and Economic Development, and Education. Responsibilities for 'Extramural Studies' were located in the School of Education but, in 1971 - renamed as Extension Services - became lodged in a separate entity with its own Director. USP in formal terms was at this time one year old.

The first distance education courses were offered in 1971, in the area of urgent need secondary school teacher training. These courses constituted the Diploma of Education, a sub-degree programme, fully supported with sets of distance learning materials. The Solomon Islands, Tonga, Vanuatu, Fiji and Kiribati enrolled diploma students in that initial programme. By 1975-76, this programme had become completely revised, and the development of preliminary, foundation and first year degree courses was underway.

The Renwick Report (1991) records that the number of courses grew from six in 1971, ten in 1974, twenty-three in 1977, and thirty in 1979 - 80. Twenty of these were for preliminary/foundation and ten for degree/diploma (Page 16). By 1989, 148 distance courses were available: sixteen for preliminary, twenty-four for foundation, thirty-two for certificates, and seventy-six for degrees. In 1990 the number of courses stabilised.

TABLE 6: Number of Extension Courses Offered (by Level)

	1984	1985	1986	1987	1988	1989
Preliminary	19	16	12	17	12	16
Foundation	22	22	23	23	23	24
Cert/Dip/Voc	11	13	22	29	30	32
Degree	23	35	45	59	76	76
TOTAL:	75	86	102	128	141	148

The University's expertise in instructional media, centrally located, is capable of producing for distance education CAL packages, high quality video, and satellite conferencing. The extent to which one should choose (or not) to do so is a separate issue, however, relating to regional student-access. USP's traditional contract with its distance students has been that teaching packages developed for home study will provide all that they need for learning and mastery. Except in the few courses with laboratory components, this contract continues still to be largely honoured in the planning of instructional media. Teaching strategies dependent on computer access, video playback facilities, even libraries or electricity have to be weighed with care when being assigned a role. The weightier or more central that role is to course delivery, the more exclusive becomes the course's potential market. In brief, media selection is always a philosophical matter related to a mission and inseparable from context. While no choice is value-free in any medium selection, in a developing world region diverse within itself, course writers and developers have especial burdens of judgment.

USP began its distance teaching in the early seventies providing core instruction with printed materials. Print remains today the basic instructional medium. Audio tape material soon became a significant second medium, from the Learning Resources and Communications Unit established within Extension Services. By 1980 it had accrued a staff of eleven which, at that time, was half of the Section's staff. Audio tapes today are standard instructional package components. For the now stand-alone Media Unit (which provides university-wide professional services), 80% of its tape production and copying work is undertaken for the distance education programme.

Instruction augmented by live satellite teaching was experimentally implemented from 1973. Then, as now nearly two decades on, this medium provided instruction to enhance the print package: that is, not as a core or integral course component. Unlike audio tape materials now integrated with print, satellite instruction remains optional because of limited student access. An experimental project in the later seventies for the satellite transmission of visual materials (graphs, diagrams, slides and video) was abandoned for technical, management and cost reasons. There are no immediate plans to reactivate the endeavour. All that is deemed necessary is pre-produced and packaged. Computers are not used as an instructional medium. Students have little access to them, and durability and maintenance are difficult in tropical conditions.

The various ways in which USP's Extension Studies programme is funded are described later. In its essential parameters, the core funding pattern has not changed over time. It is the regional member governments which provide the base funding: up to 90% of the University's recurrent budget. Member governments have always assumed responsibility for the major financial support of their institution, and distance education - like on-campus education - has always been funded as an integral mode of teaching. Illustrative details of how the recurrent budget is augmented from year to year by External Aid are provided later. The pattern exemplified is not new in 1991. Most donors are traditional and the forms of support recurrent. Details are also provided of the specific benefits to distance education from both the institutional and bi-lateral aid programmes.

Acknowledgement should be made, however, of some particular, early assistance given to the University's extension activities. Although some have been subsumed or have passed with project completion, their founding timing and contribution were developmentally critical. For the establishment of the first USPNET (on PEACESAT), NASA, the Carnegie

Corporation and USAID provided the vital support. For the second USPNET (on INTELSAT), the Project Share signatories provided the vital support. Since the Project's ending, Cable & Wireless Public Ltd. (Hong Kong) has provided satellite segment-access free; the many telecommunications carriers have heavily subsidised USP's use of local ground stations. For the initial running costs of the early USP Centres, the Carnegie Corporation provided funding support. The Governments of New Zealand and Australia have provided capital funding for all Centre buildings through externally negotiated funding.

Several trends can be noted in USP's distance education. It has developed from an initial programme of teacher training courses into a University-wide programme emanating from all Laucala Campus Schools: Humanities (SOH), Social and Economic Development (SSED), Pure and Applied Sciences (SPAS). The initial Diploma in Education programme was phased out after the major contributing countries indicated that their respective Teachers Colleges had become sufficiently well established. In the first year of its school-based distance programmes, 1981, and ten years after the Education courses were launched - SSED extension enrollments were second only to enrollment in the compulsory courses in English and Mathematics. In Semester One 1990, of the 79 courses offered the discipline breakdown was School of Humanities, 28; School of Pure and Applied Sciences, 14; School of Agriculture (Alafua Campus), 1; and School of Social and Economic Development, 36. Among these courses, enrollments were markedly heaviest in Accounting, Economics, Mathematics and Management.

The increasing development of distance only programmes has been and continues to be a feature. Beginning slowly in the mid-seventies with occasional courses developed only for extension delivery, the range now includes several full programmes such as the Certificate and Diploma in Legal Studies, the Diploma in Librarianship, the Certificate in Management Studies, the new Diploma in Early Childhood Education, and the Certificate in Teaching English as a Second Language. The proposed new Certificate and Diploma in Ocean Resources Management are establishing yet another model by developing a dual mode programme in which the distance mode precedes in development its on-campus equivalent.

Another trend is worthy of note. With the introduction of the Diploma in Librarianship, the Certificate programme was gradually phased out. This was due to staffing shortages and a general USP trend away from Certificates. Eight countries have objected with clear concern at the loss of the bridge to higher level study. The University Library is reconsidering re-introduction, therefore. Following on from this, the new Diploma in Early Childhood Education was proposed for development with the extant Certificate programme (also distance only) firmly entrenched in the Admission Regulations. The increase in the number of degree level courses and a balancing decrease in sub-degree courses continue slowly but surely. Degree level courses in 1989 accounted for 51.3% of the total programme. (In 1979-80 they comprised barely 25%.) This trend will doubtless accelerate in light of the Council's policy decision re-affirmed in 1990 to scale down subdegree activity.

LEGAL STATUS OF DISTANCE EDUCATION

The extent to which distance education from USP could be deemed to have a legal status is to be found in the Royal Charter under which it was constituted. Therein

ELIZABETH THE SECOND by the Grace of God of the United Kingdom of Great Britain and Northern Ireland and of (Her) other Realms and Territories Queen, Head of the Commonwealth, Defender of the Faith' decreed as follows:

WHEREAS Our Principal Secretary of State for Foreign and Commonwealth Affairs has OD behalf of the Interim Council of the University of the South Pacific and in accordance with the wishes of the Governments of the British Solomon Islands, Fiji and the Gilbert and Ellice Islands and after consulting Our High Commissioner for the Western Pacific as regards the interests of the people of the New Hebrides, represented unto Us that it is expedient that We should constitute and found a University of the South Pacific ...

AND WHEREAS the Governments of the Cook Islands, the Republic of Nauru, Niue, the Tokelau Islands, the Kingdom of Tonga, and the Independent Stab of Western Samoa have also expressed the wish that such a University should be established.

NOW THEREFORE KNOW YE that We by virtue of Our Prerogative Royal in respect of Fiji and of Our especial grace, certain knowledge and mere motion have willed and ordained and by these Presents do for Us, Our Heirs and Successors will and ordain as follows

There shall be and is hereby constituted and founded for the communities of the South Pacific a University with the name and style of the University of the South Pacific' (in this our Charter referred to as the University'), ...

The Chancellor, the Pro-Chancellor, the Vice-Chancellor and all other persons who are for the time being members of the University pursuant to this our Charter and the Statutes of the University are hereby constituted and henceforth for ever shad be one Body Politic and Corporate with perpetual succession and a Common Seal by the name and style of The University of the South Pacific

Under the powers to be invested in the new institution, two are of particular relevance. The former grants general authority for determining the categories of admission while the latter refers quite specifically to an external teaching mode.

To prescribe in the Statutes, Ordinances or Regulations the conditions under which persons and categories of persons shall be admitted to the University for the purpose of pursuing any programme of course of study herein.

To provide through programmes and courses of study and otherwise instruction and training at such levels and by such means, including extramural tuition, as the University may think fit

In summary, therefore, under the Charter the University became a legal entity of the region, 'one Body Politic and Corporate'. Its powers, mission and mandate are those which have approval of the eleven Governments cited. Extramural provision is particularly identified as an institutional activity to which it is encouraged and for which it has been empowered.

OVERVIEW OF THE CURRENT SITUATION

Aims and Objectives

In the University's two preparatory Reports (Morris 1965 and Alexander 1967), the founding vision of USP was dramatically established. The new institution was to observe the traditional values of higher education; be responsive to the needs and special character of the region and its peoples; and be mindful and inclusive in its teaching mission of the dispersed communities beyond its walls.

Morris refers to the provision of 'university studies to towns and villages throughout the region'. Alexander envisaged, through USP outreach, a significant means of 'raising the general standard of village life'. The Programme Planning Seminar held in 1968 went on to identify a role for Extension Services; for some correspondence courses for university credit, and for the possibility of off-campus staff. The over-arching aims and objectives of the University have thus included from the very beginning a commitment to outreach and distance education. These aims and objectives have not changed since 1968. They are encapsulated generally in the Charter of the University (1970). USP is therein established for

the maintenance, advancement and dissemination of knowledge by teaching, consultancy and research and otherwise and for the provision at appropriate levels of education and training responsive to the well-being and needs of the communities of the South Pacific.

Distance education, as the Morris and Alexander Reports illustrate, was always perceived to be a major means of fulfilling this mission. The unchanged nature of the aims and objectives and the role of outreach in their achievement are substantiated by the following reaffirmations throughout the ensuing twenty-three years.

In the 1973 Report on the Long Range Future of the University, major space and attention are given to the 'role and function of Extension Services in the task of taking the University to the village and to the people across the whole Pacific'. In 1975 in his Statement to the University of the South Pacific, the Vice-Chancellor, Dr James Maraj, considered the projection of the University as a Regional Institution. Central to this projection were, he observed, 'an upgrading of our Extension Services and a strengthening of the University's outreach'. In 1979 the Tenth Anniversary Review (Springer Report) observed that 'heavy emphasis should be placed on the growth of Extension Studies ... the attempt must be made ... to reach the population wherever it is'.

The 1983 Regional Conference on Future Directions for the University of the South Pacific recorded that

the clearest and most consistent message from the region was the need for USP to establish a stronger presence in the countries it serves. The work of USP Extension Centres obviously is valued and appreciated, and most countries would welcome enlarged facilities and an expanded role. In particular, requests were made for the wider availability of diploma and degree courses via the extension mode

In 1991, the Vice-Chancellor, Mr Geoffrey Caston, reaffirmed in practical terms the University's sustained commitment to distance education as follows :

Each extension student, OR any course, has a claim to the attention of the Department which is *equal to* that of each Off-campus student OR the same course. (Teaching resources are allocated to departments according to this principle.)

It follows that every academic staff has an obligation to participate in distance education, to the extent and in a manner that the head of department, after appropriate consultation, specifies.

Beyond these aims and objectives which are entrenched, institutional commitments, there are aims and objectives approved for each new programme development and, within the programme structure, specific course aims and objectives.

The aims and objectives of the different levels of course offering can only be generalised, for obvious reasons. The purpose or role of a course is inseparable from structural context. Foundation level courses in the Foundation Programme differ somewhat from their purposes as vocational diploma components; courses comprising certificates which lead on to diplomas, or courses comprising diplomas with some degree-credit arrangements, differ somewhat in their purposes from those in stand-alone/end-stopped programmes.

The programme of Preliminary Studies was conceived originally as a topping up of schooling. It and the following Foundation Studies programme were (and remain still) a means of providing opportunities for students 'to get their basic education up to acceptable levels'.

As the majority of member countries have now established Form Six or Year Twelve education, partakers of the Preliminary Programme as a comprehensive substitute have declined. The courses as individual components remain, however, and only in the distance education mode. Their purposes are remedial or bridging. The Foundation Studies programme as a comprehensive or part-time substitute for a national Form Seven or Year Thirteen remains heavily subscribed. (Indeed, it is being strengthened in its distance mode of delivery, in the light of Council's decision to shut down the on-campus mode at the end of 1992-)

Foundation level courses also contribute to some of the sub-degree certificates and diplomas. Their purposes in this context are not quite the same as bridging (any more than a 100 level degree course is a bridge to 200 level, or a 200 level course is a bridge to 300). They have a formally structured place in these vocational programmes as initial points of entry, or introductions to advanced level courses. Certificate and diploma programmes are variously constituted. They may include (but gradually less so) foundation level courses, and appropriate degree courses at 100 and 200 levels. Some also may include courses designated C or D level: that is, courses designed and offered to meet the programme's specific aims and objectives. These are vocational in their focus (e.g. on Management and Legal Studies, Applied Computing, Accounting, Educational Administration). While they often, in practice, provide bridging for some students to advance their studies to degree qualifications, some candidates are already university graduates acquiring a vocational specialty.

The aims and objectives of the degree programmes which are available through distance education are the same as those for on-campus delivered degrees and, presumably for the BA, BEd and BSc everywhere.

At all levels of offering - preparatory, sub-degree and degree - the distance education courses and programmes clearly share, beyond their specifics, one overall objective: to make themselves available to students remote from campus.

Control, Organisation and Management Structure of Distance Education

The distance education programme is a regional establishment, proceeding from a legally constituted regional entity and academically autonomous. While some co-operative relationships do exist at various delivery and support levels, they are not 'established' arrangements affecting provider-status.

USP is a dual-mode institution; its courses and programmes of study for distance delivery are subject, therefore, to the same overall academic controls and procedures as those applying to internal courses and programmes; to the same overall budgetary and auditing controls and procedures as those applying to internal operations. For academic controls and procedures (course approvals, withdrawals, regulations, curriculum changes, continuous and final assessment), the Boards of Studies, the Academic Committee and the University Senate have ascending responsibility. The introduction of a new programme requires also the approval of the Academic Planning Committee and all new programmes require the approval of the University Council. Both the Director of Extension Services and the Deputy Director/Head of Distance Education are members of the Academic Committee, the Academic Planning Committee and the Senate. The Director is also a member of the four Boards of Studies and attends the Council *ex officio*. For budgetary matters (staffing costs, support services, programme resource needs), the Resource Management Committee and the Finance and General Purposes Committee have responsibility. All fiscal matters (including any developments with funding implications) are reported ultimately to the University Council for final decision/approval. Both the Director of Extension Services and the Deputy Director/Head of Distance Education are *ex officio* members of the Resource Management Committee, and the Director currently is a Senate appointed member of the Finance Committee.

Within the terms of reference of this infrastructure, distance education at USP is holistically managed; it is subject to university-wide and integrated jurisdiction. This has its philosophical virtues as well as its practical drawbacks. The theoretically integrated infrastructure for control precludes any simple answers in the areas listed. There are the obvious and expected tiers of responsibility which lie below it, or are delegated from it as the ultimate government. There are others, however, which remain collective or shared and difficult to attach clearly to accountability.

Responsibility for the administration of the distance education programme is perhaps the easiest to identify, belonging clearly to Extension Services. Although all distance students belong to the respective academic departments in the same way as their on-campus counterparts, they are the administrative responsibility of Extension Services staff. This responsibility includes pre-enrollment counselling and all enrollment processing; maintenance of student files and records (admissions, withdrawals, programme completions); materials production and distribution; assignment tracking, logging and all assessment records; production/ distribution of test and examination scripts; organisation of examinations; and collection of student fees. In none of these tasks are the on-campus and distance education

administrative systems integrated, even within the area of academic records.

Within Extension Services itself, to whom these tasks solely belong, administrative responsibility is undertaken regionally by its staff in each of the national Centres and in the Headquarters on the Laucala Bay Campus. Given the lack of computer links, and of reliable communication and transport systems to traverse the thousands of ocean-kilometres between them, it is formidable administration on a daily basis. It comprises responsibilities, however, which Extension Services would not welcome sharing. Administration designed to service a small body of largely resident, full-time students has little in common with that needed to service large numbers of part-time invisible students, resident in four time zones.

In terms of academic standards, the University is subject to triennial, overall review by the University Grants Committee. Distance education, being integral to teaching and support services, is reviewed quite naturally within this evaluation process. Each academic *department* is also reviewed regularly and separately by External Assessors. These persons are uniformly distinguished scholars from internationally reputable institutions. They review the department's distance teaching performance along with its internal teaching performance. Within its internal structure, the University has also a committee on overall Student Performance and procedures for dealing with individual Unsatisfactory Performance. Distance students are not exempt from these monitoring jurisdictions. All *staff* must be reviewed for confirmation of satisfactory performance once every three years. Review of cases of unsatisfactory performance within this period is undertaken annually. Academic standards and credibility in the distance education programme are additionally sustained by curricula and examinations common to both modes of delivery. Although initial admission criteria are purposefully different, course content and final assessment are purposefully not.

Resource planning ultimately lies with the University Council. Resource plans related to academic developments and staffing emanate usually from departments, passing through the Boards of Studies, the Academic Planning Committee, the Resource Management Committee, and penultimately to the Finance and General Purposes Committee (which recommends the following year's Annual Budget to the October meeting of the Council). Along the way within this process, particular committees exist for the disbursement of funds allocated for resources such as computer hardware and software (Computer Services Committee); for capital expenditure (Sites and Buildings and Medium Works Committees); support requirements (Equipment and Furniture Committee). The planned resource needs of the ten national Extension Centres and of their distance students are considered and met within this structure. Independent of their centrally allocated resources, Centres also accrue local funding from or for local activities such as continuing education and non-formal courses, project funding from aid sources, and grants and donations. These resources are managed separately by each Centre's Advisory Committee, comprising key community people with interest and influence in local education.

As is usual in dual-mode teaching institutions, the distance education provisions are published in the official annual Calendar. This is not widely useful, however, for the majority of current and potential Extension Studies students because it is published in December, in time for ensuing on-campus enrollment. By this time, for obvious practical reasons, most national Centres have completed their enrollment procedures. It is relatively expensive for many distance students who, unlike their full-time on-campus counterparts, are generally unsupported by government and employer scholarships. Moreover, it contains information which is largely irrelevant or unnecessary for students living on remote islands

and atolls, pursuing study in only one or two courses and under open entry conditions.

Most distance students, to the extent that they have access to and use any official publications at all, use the Handbooks published by Extension Services. In the new format introduced in 1991, these now comprise a set of nine small booklets: a Student Handbook containing basic, general information; six others which are subject/programme specific in Education, Librarianship, Language and Literature, Legal Studies, Mathematics, Computing and Science, Accounting, Management and Economics; and one for miscellaneous courses not specific to a programme, and one devoted to the non-credit Continuing and Community Education programme. This information is produced centrally for regional distribution, to Centres and thence to students, the Public Service and Education Ministries. It is probably the case, nonetheless, that the most useful student information is that which is provided more informally by the local Centre. This is effected verbally in face-to-face counselling, by newspaper advertisements/announcements, regular local radio programmes, Centre newsletters and answering telephone queries.

Relationships between distance and non-distance education institutions which exist within the region have a variety of bases. These include materials transfer, shared students, shared facilities, consultation and standards-monitoring, and course or programme accreditation.

As USP is still the only indigenous provider of distance education within its own twelve country region, its materials-transfers tend to be outward. They occur, it should be noted, not for the purposes of further distance education by the purchasers/recipients but for those of resource-acquisition for classroom teaching. The National University of Samoa, the University of Papua New Guinea, the College of the Marshall Islands and some Teachers Colleges and secondary schools are materials buyers. Superseded editions of coursebooks and textbooks are donated free to interested institutions.

The sharing of students brings USP into formal relationship with several institutions. Form Seven (or Year Thirteen) students in Kiribati and the Cook Islands are full-time USP students attending the local high school. They are theoretically distance students, supported by Government scholarships, but with face-to-face teachers provided by their respective schools. Unlike students in institutions in the materials transfer category, these students pay standard USP tuition fees, receive USP support and gain university credit for completed courses. King George V High School (Kiribati) and Tereora College (Cook Islands) participate in this type of arrangement.

Facilities-sharing between institutions occurs in two directions, use of USP facilities by others, and use by USP of others' facilities. In Fiji, for example, several strategically placed secondary schools have been designated Sub-centres, accommodating distance learning materials and local after-hours tutorials. In the Cook Islands, use is made by USP of the College's science laboratories. In several countries the USP Centre library is used regularly by other institutions' students.

Consultation and standards-monitoring are relatively limited within the distance education area. This year the Solomon Islands College of Higher Education, a non distance education provider planning a distance mode, placed one of its senior officers within Extension Services for eight weeks on consultancy/attachment for staff development purposes. The National University of Samoa, which uses adapted USP distance materials in some internal courses, gains accreditation for these, dependent on institutional monitoring.

There is another type of relationship between distance and non-distance education

increasingly being forged within the region by the University's Institute of Education. It involves, not another institution per se, but the Institute (WOE), the country's Ministry of Education, and specified Extension Studies courses. Two examples of this exist in Kiribati and Tuvalu, where IOE has assisted the respective Ministries in the establishment of a national In-service teacher training qualification which includes some USP components to be studied at a distance. A consequent Tuvalu Diploma in Education will be, therefore, a credential awarded by the Ministry, and one in which USP courses have a structural accredited place. In a major new venture in 1992, the Fiji Government Ministry has taken, for its secondary school teacher trainees at the College of Advanced Education, more than 100 course places in the USP distance programme. The eventual qualification being earned is not USP's but the 100+ course-enrollments are for the semester's duration.

Perhaps the closest relationship in the region between distance education and relevant non-distance education occurs within USP itself and so is easily overlooked. It is a crucial relationship, however, dynamic and needing care. Togetherness in practice does not always produce equality.

Historically, the distance mode courses have grown out of or by conversion of existing on-campus equivalents. This is still (but decreasingly) the predominant procedure. There is a very positive assumption that, as far as possible, courses developed for internal students should be made available to part-time distance learners. (In the programme proposals now, departments are required to state their schedule of development for eventual distance delivery). The negative assumptions which tradition has nurtured are that the non-distance mode chronologically and in priority comes first in the system, that what is appropriate for on-campus students can be appropriately adapted for distance students only with loss of academic quality and mode-equity. However, distance-only programmes are on the increase. In these, the negative assumptions are welcome absent.

The internal close relationship between USP's distance and non-distance education has not only been forged by equivalent offerings in which the off-campus courses follow on in development. Once developed with teaching packages, these distance courses also become resource-materials providers for internal application. The process thus becomes circular in a sense. The on-campus course is developed, the off-campus equivalent follows, and the latter's teaching materials are subsequently re-applied on campus. There are positive and negative considerations raised by this. There is the danger of the internal mode's needs inappropriately and unconsciously (or even consciously) determining the content and design of the external course. There are the virtues of ensuring that what is provided for distance students is not second best in quality, and of providing additional incentive for teaching staff to make the distance mode conversion.

Financing Distance Education

Major financial support of USP is provided by its twelve member governments, as a recurrent commitment within their respective national Education Votes. Collectively, government contributions to the University's recurrent budget amounted to 90% of approximately F\$20 million in 1991, and will amount to 90% of approximately F\$24 million in 1992. The Fiji Government's contribution represents 60% of total contributions. Amounts levied against each member country are not voluntarily or arbitrarily struck. They

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are determined on the basis of a funding formula directly related to the number of students enrolled from each country. Both internal and distance enrollments are included in the funding assessment, converted to FTES also in accordance with an approved formula. In very simple terms, the more students which a country sends to the campuses or has enrolled in Extension Studies, the more it will be required to contribute to the University's recurrent budget. The formula itself and the level to which the University should be funded are regularly reviewed and determined for the triennium by the Ministers of Finance of member governments in collective decision. The remaining 10% of the recurrent budget is provided by the Government of Australia (6%) and the Government of New Zealand (4%).

Outside of this basic support funding, USP receives substantial assistance from a multiplicity of other sources. The amount of this external support received in 1991 was F\$12,356,400. Additional to this are other longer-term funding arrangements which support specific programme developments, such as Development Studies, Ocean Resource Management, and Tourism and Population Studies.

It is not possible even to begin to separate out the expenditure on distance education from these preceding sources of funding. Because the two teaching modes of the University have been integrated and holistically managed from the outset, funding to the teaching departments and service sections is allocated (and expended) untagged either for on-campus or distance activities.

The only exception to this is Extension Services itself, which has work requirements related solely to the two outreach operations of distance education and continuing/community education. That Extension Services received in 1989 only 13.6% of the overall budget (for expenditure on both of its outreach operations) but had within its care 38.7% of the FTES roll, indicates the extent to which distance education is also substantially supported or buried within all other sections' budgets.

In brief, therefore, money and staff time are generally expended without any system of differentiation between their internal and external purposes. This inclusive style of budgeting has both its obvious virtues and its obvious dangers. (The Renwick Report, in its review of two decades of distance education at USP, has voiced concern about this on-going procedure. The Team concluded that under the procedure, the claims that distance education students can properly make on the University's total quantum of resources are not being met. The Report and its recommendations on this issue have yet to be formally considered by the University community.)

Students, as everywhere, also contribute partially to the budget by way of their feespayments. For the distance courses (not differentiated by subject), current fees are predegree, F\$40; 100 level, F\$51; and 200-300 level, F\$68. Materials and textbook fees are additional charges made on a cost-recovery basis. For each course taken, students pay a Centre fee also, of up to F\$15. Unlike their on-campus counterparts, most Extension Studies students are not funded by scholarships. Some, however, have their costs reimbursed by employers on a successful completion basis.

Geographical Coverage of the Provision of Distance Education

The physical context of USP has dramatic features: 6,500 km across and three times larger than Europe, the region's population of only 1.3 million is dispersed on land masses which,

aggregated, are no larger than Denmark. One country alone comprises one hundred populated islands, one other eighty, another twenty-six. Two more have island-counts of fifteen and thirty-three. The Republic of the Marshall Islands, by its recent membership, has brought to USP another thirty-four. In-country land mass dispersion is as follows:

TABLE 7: Land Mass Dispersion of USP Countries

Member State	No. of Islands	Inhabited Islands	Distance (km) from capital to most remote settlement
Fiji	322	95	420
Solomon Islands	c.400	6.60	1400
Western Samoa	6	4	120
Vanuatu	c.80	66	550
Tonga	170	30	590
Kiribati	33	21	3500
Marshall Islands	c.32	26	1100
Cook Islands	15	13	1350
Nauru	1	1	n.a.
Tuvalu	9	5	490
Niue	1	1	n.a.
Tokelau	3	3	n.a.

It is not a simple matter to state accurately the number of islands and atolls covered by the USP distance education programme. Theoretically, all populated land masses of each member country have access to distance education through their in-country Centre. Many, however, do not yet have the transport and communication systems which make participation a feasible possibility. In the Cook Islands, for example, the 1991 roll indicates that only six of the thirteen populated islands had registered students. These were Rarotonga, Aitutaki, Atiu, Mangaia, Mauke and Matiaro. Palmerston, Pukapuka, Nassau, Rakahanga, and Manihiki lack the necessary communication/transport systems. Penrhyn only acquired them in 1990. In Vanuatu in 1991 only nine of the sixty-six populated islands had registered students (Efate, Santo, Malekula, Tanna, Epi, Pentecost, Ambae, Ambrym, Tongoa). Two of these islands had a single enrollment, two others an enrollment of two. Kiribati recorded enrollment on fifteen of its thirty-three atolls, with the lowest percentage of total enrollment at 0.19% .

Instructional Systems

The major components of instruction and delivery methods for distance education from USP can be classified as those which are centrally generated for regional purposes, and those which are locally generated for national purposes. These classifications can be applied to the separable components of teaching materials and learning support services.

Core materials for all distance education courses are centrally generated for regional consumption. They are developed by Course Teams, usually comprising an academic content specialist (Course Writer), an instructional designer (Course Developer), a media specialist and a course development assistant. Core materials usually consist of at least two printed texts: the Introduction and Assignments booklet and the Coursebook. Ancillary components

might include a Reader, textbook(s), audiotapes and, perhaps, a videotape.

The Introduction and Assignments booklet introduces the course as a whole, with reference to an introduction to the course writer/tutor; the overall aims and objectives of the course; a summary of the course content; a list of the course materials; a suggested study schedule; the forms of assessment used; help available through Centre resources, local or satellite tutorials, and course tutor visits; details of tests and assignments; content update and enhancement; a sample of an exam paper (new course); or a past exam paper (continuing course); and a course evaluation form. The Coursebook provides a study guide for the course; learning opportunities through the content and self-assessing exercises; integration of all the materials for the course; and readings, although these may be presented separately also in a Reader. Audiotapes are used for presenting information impossible to print such as dialects variation in a language course; personalising a course and bringing tutor and student closer; presenting further clarification of difficult topics; and enhancement of content. Commercially produced textbooks are prescribed for many courses but can occasionally present problems with their unfamiliar concepts and examples; their internationally determined prices; lengthy delivery lead-times; readability levels not appropriate for second language readers; and content sometimes irrelevant to Pacific learning needs. Given the geographic and economic circumstances of USP distance students, the use of videotapes is not generally encouraged for the transmission of core information, and computers cannot be used as an instructional medium.

Instructional Support Services

Those centrally provided for regional purposes include Satellite Tutorials on USPNET (the regional telecommunications link based on INTELSAT); visits from campus-based Course Tutors to national Centres; Summer Schools in national Centres and outer islands; and personal correspondence with students.

Satellite tutorials are voluntarily convened and taught by the on-campus Course Tutor, so there is no institutional requirement that they be offered. Course Tutors who do provide such services to their distance students usually commit themselves to a regular weekly or fortnightly schedule of one hour sessions. Tutor Visits are vigorously requested both by students and Centre staff, and there is no lack of willing on-campus teachers to undertake them. The major difficulties in meeting demand, however, are always cost and often on campus understaffing levels which preclude travel. Costs of Tutor Visits can be very expensive simply because international air services in the Pacific are very expensive. Generally, each Centre receives two or three Tutor visits in each semester and these tend to be in core courses or those with high enrollment demand. As eighty to ninety distance courses are offered in each-semester, Tutor Visits seldom occur for many of them. Those that do take place are quantifiably effective, however, not only in lifting student morale but also in familiarising on-campus staff with the local and often difficult circumstances of their students.

Summer Schools are not officially distance education offerings. They are administered by Extension Services, however, because they are off-campus activities. They are provided only for students enrolled through the Extension Centres; they are the only means of delivering particular types of courses (e.g. those with practicum components) which are required for students to complete their distance programme but which are not available at a

distance; and they are the only means of delivering particular courses such as those in Science for which a well-qualified Local Tutor/demonstrator is required but has not been available. Summer Schools provide full-time tuition over a period of four to six weeks, with local students all coming to and residing at a central site. The complete semester curriculum is covered during this time and students are formally examined at the conclusion of the School. Funding is again an inhibiting factor on the numbers of Summer Schools which can be annually mounted. Minimal enrollment numbers per country have been set, therefore. Because the University's policy is that Summer Schools must be self-supporting, fees are high relative to Extension Studies courses (in 1991 F\$200 vis-a-vis F\$30), and running costs still require subsidy from external aid. This has come in the past mainly from the Commonwealth Fund for Technical Co-operation (CFTC). This funding is to end in 1991. The future of the Summer School mode is rather in doubt at present, although the Renwick Report has strongly urged its dramatic expansion. Some individual member governments are using bi-lateral aid funding in the meantime to ensure the survival of Summer Schools in their country.

Correspondence with students is undertaken by some on-campus Course Tutors but could in no way be regarded as a general activity. As in all distance teaching institutions, Teaching through Assessment as an opportunity for learner assistance is viewed positively by some and ignored by others. Comments on assignments range from pages-length to a mere grade. Overall and not unusually, most fall somewhere in between. There is no institutional policy on how responses should be formulated.

Instructional Support Services provided in-country by the national USP Centre for local purposes include various combinations of regular radio programmes; occasional television programmes; face-to-face tutorials with a Local Tutor; peer tutorials without a Local Tutor; teleconference tutorials on an in-country HF or public switched network; Centre bulletins/newsletters for students; library services (books, audio and video cassettes); computer facilities and study space; study skills and course counselling (either at the Centre or by Centre staff travelling); practical laboratory sessions (where possible and required); and bridging courses. The Centre serves as the clearing house for all materials/assignments, provides liaison between students and remote teachers and is USP in the member country.

Languages of Instruction

The one language of instruction for both on-campus and distance courses is English. For the majority of the University's students, this is their second language or, at least, not their mother-tongue. For some students, English is even a third language. Students are not permitted to work in their vernacular for formal assessment purposes, for seldom if ever could work be marked in its original form. Even if students were to use their predominant native language (and not one of the other 264 recorded as still spoken in the region), the designated Course Marker in Suva or Port Vila would be unlikely to share any one student's linguistic profile, let alone the multiplicity of them within the course's enrollment.

In the Extension Centres around the region, some tutorials and many spoken transactions between staff and students may be conducted in the local languages. (This does not and could not generally apply on the two residential campuses, where both the student body and staff comprise multi-ethnic and linguistic groups.) Some Centres which produce local radio programmes for students present two versions, one in English and one in the vernacular.

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Three separate points are perhaps worth noting. First, research undertaken by the University's Language Resources Unit indicates clearly that students' academic performance in their initial year of (on-campus) study is directly related to their English competence. Competency-testing, which is systematically undertaken in the full-time pre-degree programme, has proved a most reliable predictor of results. Second, because of the particular language difficulties faced by the group of Ni-Vanuatu students who are Bislama/Francophones rather than Bislama/Anglophones, a limited range of distance courses has been allowed, exceptionally, to be translated into French. Three (LLD28 Elementary Translation Techniques; GE102 Cultural Geography; BIP02 Preliminary Biology) have been completed. Work is on-going for Preliminary courses in Mathematics (2), Chemistry (1), another in Biology, and one for a foundation course in Geography. Third, the Pacific Preschool Teachers Certificate, offered through Extension as a USP Continuing Education award, has now been translated into several major local languages. Even though this Certificate is not a qualification carrying academic credit, when offered in its local language it must become a confined local award (that is, not granted by USP's Continuing Education section).

Enrollment in Distance Education

Enrollment statistics in USP's distance education programme have several particular characteristics. First, they exclude enrollments in distance mode courses and programmes of study which are not offered for academic credit: that is, institutional terminology differentiates between Extension Studies (credential courses and programmes) and Continuing Education (non-credential courses and programmes). Students enrolled, therefore, in the Pacific Preschool Teachers Certificate - who study at a distance, pursuing a formally structured, examinable programme over three semesters - are counted neither in the distance education statistical head-count nor in the University's FTES annual returns. Second, under the Extension Studies Regulations and the University Regulations for Part-time Students, enrollment in the distance education programme is normally limited to two courses per semester. Exceptions to the two-course regulation are occasionally permitted in individual cases (where, for example, a Centre Director might assess an unemployed adult student to be sufficiently competent for three), or where a member government specifically requests that a full-time programme be locally available. Three such exceptions exist in this category and all at the secondary education level. (In the Cook Islands, Kiribati and Vanuatu respectively, a full-time Form Seven or Year Thirteen programme is available to approximately twenty selected students.) In 1982, statistical data established that 78% of extension students were taking only one course, 20% two courses, 1 % three and 1 % four. (Fifty percent of these courses were at the pre-degree Preliminary/Foundation level.) Although time may have altered these specific course-load percentages to some extent, the load of one or two courses per semester remains the overwhelming pattern.

A third characteristic is that extension Services, responsible for the administration of all enrollments in the distance education programme, uses aggregated course enrollments (i.e. head-count) for the production of statistics. Statistics for internal students, however, are produced in terms of full and part-time student numbers. In servicing, for example, a particular Solomon Islands student enrolled in MGD01 throughout their course of study, it is not relevant in practical terms that they perhaps carry the same identification number as

an enrollee in LLF11. These courses belong academically to two different departments and for all intents and purposes are taken by two separate people.

A fourth characteristic to note is that when extension course enrollments are converted into FTES percentages of the total university roll, they are not simply divided to produce a notional full-time student body. A Discounted Student Unit (DSU) formula is applied to conversions. In 1989 it determined that one full-time campus student equalled one FTES, one part-time campus student equalled one-third FTES, and one discounted Extension registration equalled one-fourth FTES. Because of significant dropouts during the semester, the enrollment figures of 1 April are discounted by 30% for preliminary registrations, 25% for Foundation, Certificate and Diploma, and 20% for Degree registrations.

A fifth feature is that admission to Extension Studies courses is governed by regulations which differ from those applied to the equivalent on-campus courses. Although in terms of subject content and performance assessment, the distance and face-to-face modes of a course are stringently kept as equivalent as possible, enrollment access to the home-study option has deliberately been established as more open. This policy relates directly to the perceived (and indeed originally conceived) role of USP as the University of a developing world and specifically to the philosophy of its extension activities. Access or admission to courses in the distance education programme is, under the University's mature entry regulation, open to all students over age twenty-three, so that formal criteria applied to internal students undertaking identical courses do not apply to this age group.

Moreover, until 1991, enrollment ceilings or quotas (which must for practical reasons apply to the face-to-face mode of courses) have generally not been applied to the distance programme. This, in addition to the mature entry factor, has obviously contributed to the high level and growth rate of distance programme enrollments. From 1991, this circumstance has altered, with enrollment controls now instituted on the advice of the University Grants Committee and by subsequent ruling of the University Council. Seven years of a frozen recurrent budget (1984-1990) and increasing student demand have severely impaired the delivery of quality teaching. Only a minimal growth rate in overall FTES will be permitted in the current triennium (1991-1993). Course ceilings have, therefore, had to be firmly imposed within the distance education programme.

TABLE 8: Semester One Statistics Of Extension enrollments by Country

	1985	1986	1987	1988	1989	1990
Cook Islands	204	177	247	253	422	400
Fiji	1603	1692	2047	2115	3445	3755
Kiribati	266	185	285	377	599	448
Nauru	11	42	235	117	*	114
Niue	41	26	23	33	*	26
Solomon Islands	194	249	290	362	537	362
Tokelau	49	40	37	76	84	26
Tonga	622	766	465	490	838	523
Tuvalu	22	36	25	23	112	103
Vanuatu	152	201	188	301	291	396
Western Samoa	270	288	243	257	369	298
<u>Total:</u>	3419	3699	4085	4404	6648	6451

* No enrollment due to materials transport difficulties

Distance Education in Asia and the Pacific

The following graphs present eleven countries - specific profiles, indicating national course enrollments at the four available levels of distance education. Preliminary level equates with Form Six (or Year Twelve) within the secondary school system, Foundation level with Form Seven (or Year Thirteen).

Vocational courses are generally those which lead to certificates and diplomas as sub-degree qualifications, although many of the programmes include degree level courses. Degree courses are offered at 100, 200 and 300 levels (with the number available declining significantly at each successive level).

Table 9: Semesters One and Two Statistics of Extension Students by Country (1990 only)

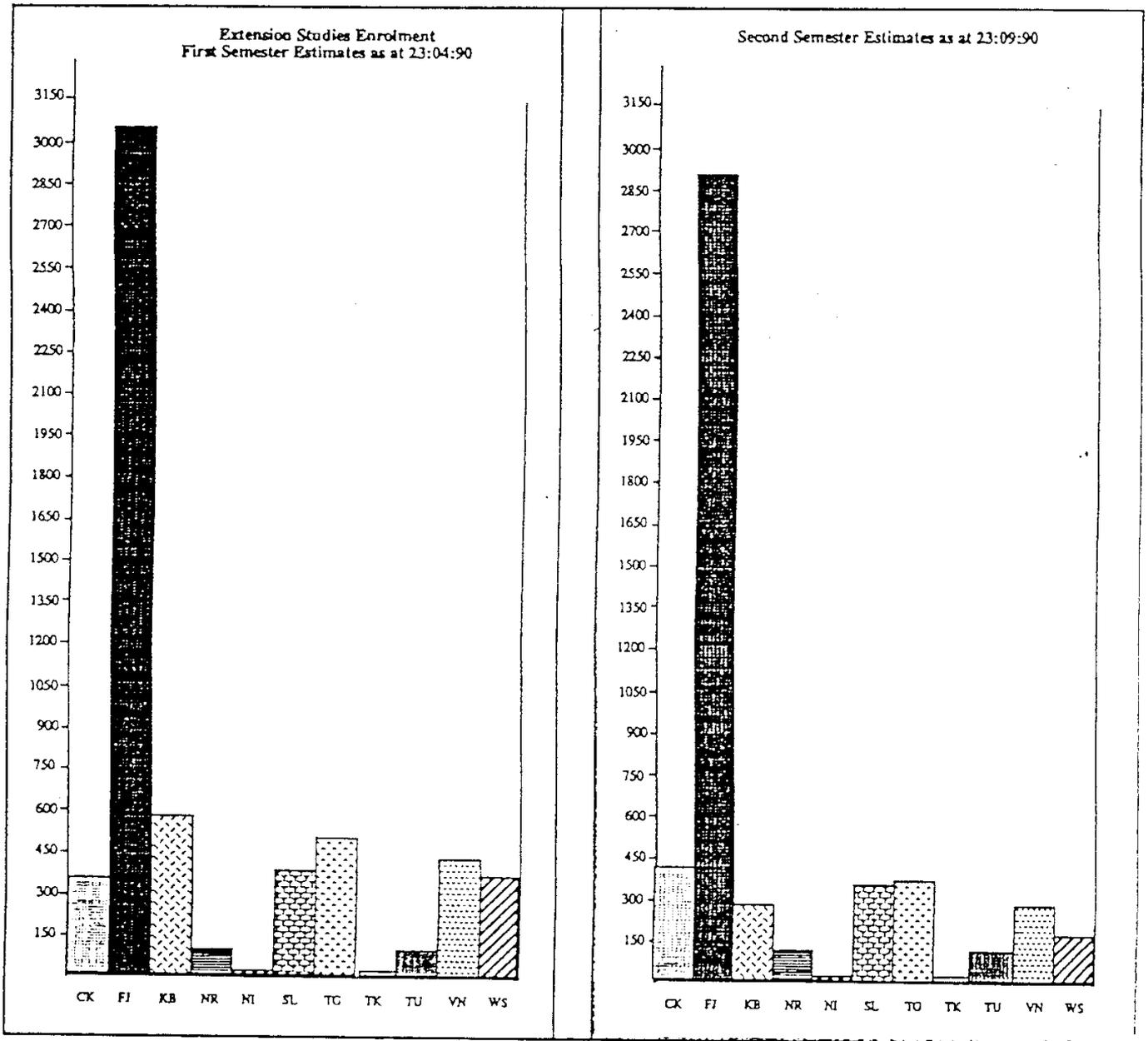
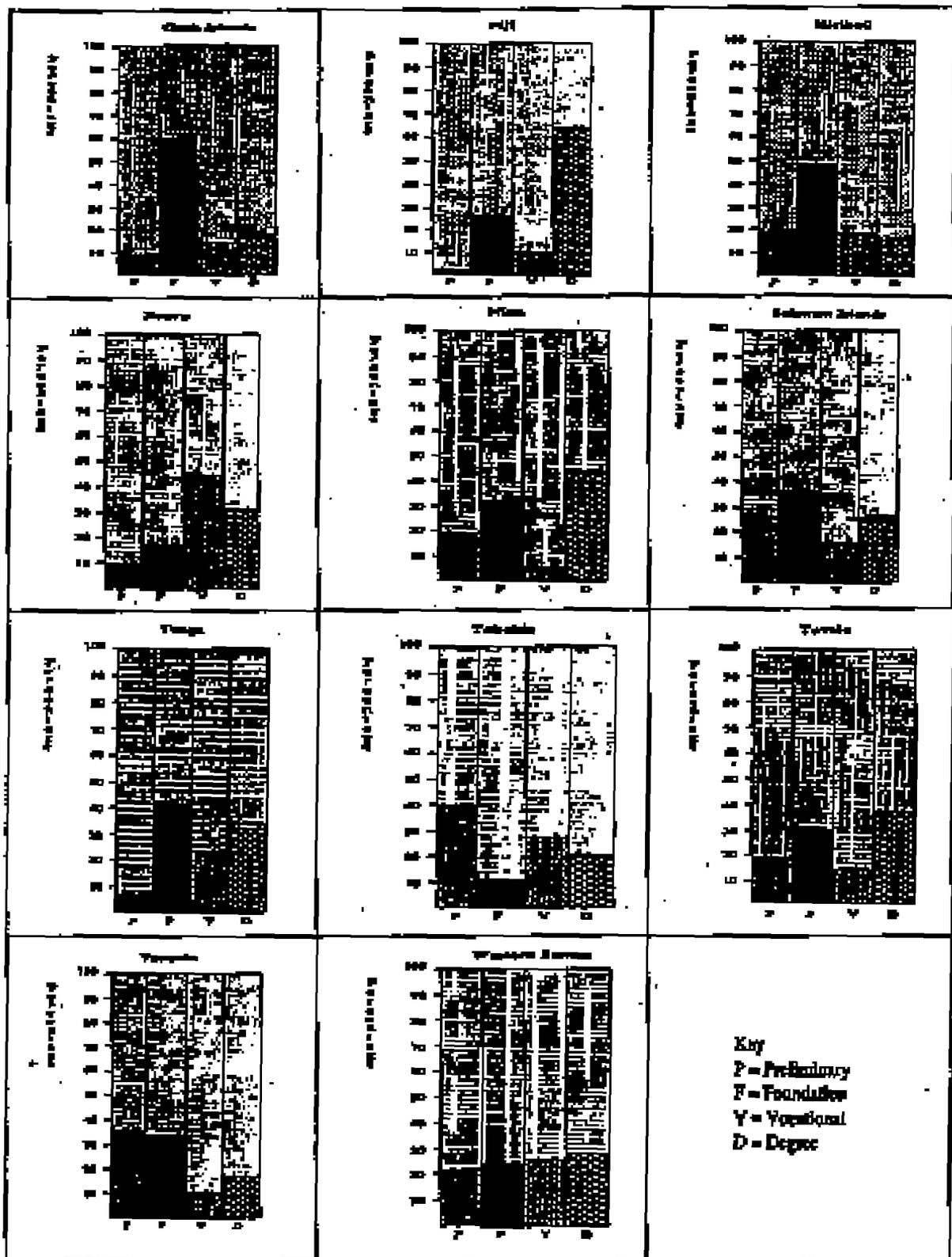


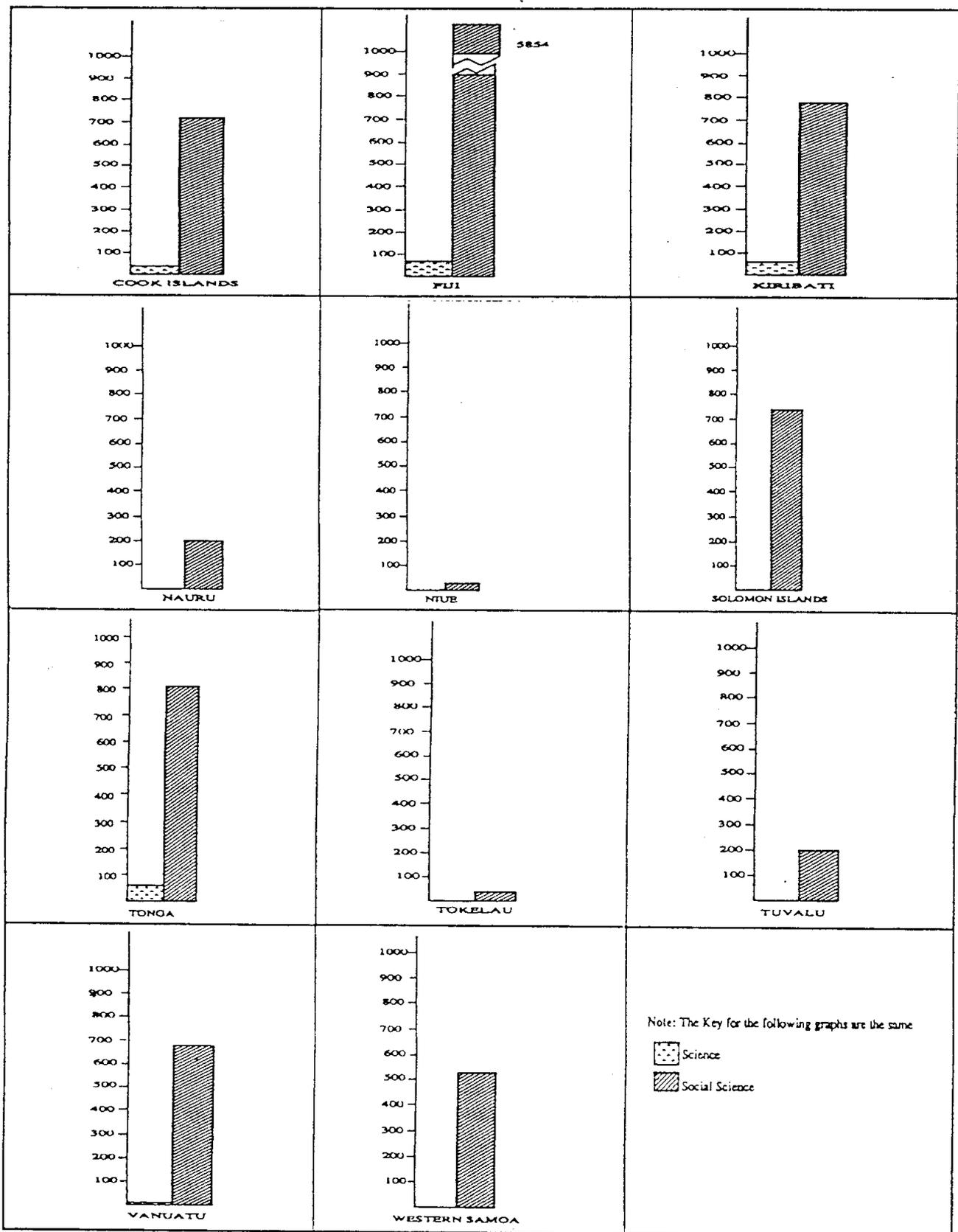
TABLE 10: Percentages of Total Course Enrolments by Country by Level in 1990



The above Table generally reflects the strengths or otherwise of the contributing national school systems. The Fiji graph, for example, with its very low Preliminary and relatively low Foundation enrollments, reflects a well-developed, widely available Form Six in the secondary system. This precludes much of the need for the USP Preliminary programme; has prepared students well for admission to the on-campus Foundation programme in the subsequent year. It also reflects the availability of Form Seven as a Foundation Programme alternative in some Fiji secondary schools. The lower enrollment of students in vocational programmes reflects perhaps the number of other tertiary institutions (e.g. Fiji Institute of Technology), which offer a variety of vocational training. The high level of distance enrollment at degree level almost certainly reflects some of the preceding factors, the high profile of USP within a host country and the stronger economy of Fiji within the region. The high Foundation level enrollments in Kiribati and the Cook Islands reflect the absence of a national Form Seven (making the USP extension Foundation programme the single available option). High Preliminary and Foundation enrollments in Vanuatu reflect the lack of local facilities and of Form Six to Seven options in the local schools. This in turn produces very low enrollments at the subsequent vocational and degree levels.

The following tables specific to science education show distance enrollment/provision patterns which give cause for concern, given the region's human resource development needs. The imbalance reflects a lack of existing in-country laboratory facilities for practical work; lack of USP funds to establish its own comprehensive facilities; lack of local qualified personnel to supervise mandatory practical work; and lack of adequate preparatory work in the various lower secondary school systems to produce potential enrollees.

TABLE 11: Student Enrolments: Social Science Against Science



Distance Education in Asia and the Pacific

The requested differentiation between full and part-time distance enrollment is not easily provided. Extension Services records only course registrations; and the University's FTES conversions by definition do not reflect actual full-time enrollment. It is probable that in Semester One of 1990, however, approximately 600 course enrollments were carried by fulltime students. (60 x 10 in Foundation Studies).

Tables 12 through 21 have been taken from the University's Submission to the University Grants Committee, for the 1991-1993 Triennium.

TABLE 12: Share of Extension FTES in Each Country's Total FTES

	1984	1985	1986	1987	1988	1989
Cook Islands	77.4	77.1	73.3	68.7	72.7	77.7
Fiji	17.8	22.8	20.0	21.5	24.9	32.3
Kiribati	39.1	50.0	41.6	55.1	63.1	71.8
Nauru	58.3	40.0	63.6	95.4	76.0	0.0*
Niue	50.0	42.3	26.7	44.4	50.0	0.0*
Solomon Islands	22.8	22.9	26.0	29.3	28.9	40.9
Tokelau	56.3	46.2	30.8	30.4	25.0	46.7
Tonga	44.3	49.3	55.4	41.3	47.0	59.3
Tuvalu	35.1	15.4	24.0	22.2	48.3	51.3
Vanuatu	26.2	28.8	29.8	30.7	43.3	42.3
Western Samoa	42.4	32.1	35.1	30.5	36.4	46.8
TOTAL:	26.0	29.0	27.1	28.0	31.1	38.7

* Note 1. Nauru and Niue had no enrollments in Semester One 1989 because of transport difficulties. In 1988, however, their distance enrolments comprised 79% and 50% respectively of their country's total FTES.

Note 2. Distance enrollments, as almost 39% of total FTES, peaked in 1989. The percentage has fallen slightly in 1990-91.

Note 3. In submitting this data to the UGC in 1990, the University drew attention to the fact that for most countries other than Fiji, study through Extension comprised more than 40% of all the FTES that they contributed. In the Solomons, Tonga, Tuvalu and Vanuatu the proportions have been increasing, and in the Cooks and Kiribati most markedly of all (over 70%). Even for Fiji, the proportion has been increasing since 1984.

Mode of Study Comparisons

TABLE 13: Credit Enrollment (Head Count) by Mode of Study

	1984	1985	1986	1987	1988	1989
UNDERGRADUATE *	5014	6837	8046	6367	6481	8933
Full-time	1469	1438	1685	1772	1602	1752
Part-time	471	378	452	466	475	568
Extension	3074	3419	3699	4129	4404	6613
POSTGRADUATE	52	36	64	106	61	66
TOTAL:	5066	5271	5900	6473	6542	8999

* Includes Preliminary, Foundation and Diploma students.

The table shows that in the period 1984-89, the gross numbers of students (head count) taught by USP in credit courses increased from 5066 to 8999, a massive increase of almost four thousand students or 78%. By far the largest proportion of this increase was through the Extension mode which added 3539 students with a growth of 115%, although the fulltime and part-time student head counts also increased by 19 and 21% respectively.

TABLE 14: Credit Enrollment (Head Count) Percentages (%) (by Mode of Study)

	1984	1985	1986	1987	1988	1989
UNDERGRADUATE	99.0	99.3	98.9	98.4	99.1	99.3
Full-time	29.0	27.3	28.6	27.4	24.5	19.5
Part-time	9.3	7.2	7.7	7.2	7.3	6.3
Extension	60.7	64.9	62.7	63.8	67.3	73.5
POSTGRADUATE	1.0	0.7	1.1	1.6	0.9	0.7
TOTAL HEAD COUNT	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 15: Credit Enrollment (FTES by Mode of Study)

	1984	1985	1986	1987	1988	1989
UNDERGRADUATE	2213	2219	2542	2718	2580	3204
Full-time	1469	1438	1685	1772	1602	1752
Part-time	157	126	151	155	158	189
Extension	587	655	706	791	820	1263
POSTGRADUATE	52	36	64	106	61	66
TOTAL FTES	2265	2255	2606	2824	2641	3270

The table shows that while the full-time and part-time students increased by 19% and 21 % respectively (adding 315 students), the Extension mode saw an increase of 115%, adding the equivalent of 676 students. While the proportion of full-time students declined from 65% to 54%, that for Extension increased significantly from around 26% to 39%.

TABLE 16: Credit Enrollment (FTES) Percentages (%) (by Mode of Study)

	1984	1985	1986	1987	1988	1989
UNDERGRADUATE	97.7	98.4	97.5	96.2	97.7	98.0
Full-time	64.9	63.8	64.7	62.7	60.7	53.6
Part-time	6.9	5.6	5.8	5.5	6.0	5.8
Extension	25.9	29.0	27.1	28.0	31.0	38.6
POSTGRADUATE	2.3	1.6	2.5	3.8	2.3	2.0
TOTAL FTES	100.0	100.0	100.0	100.0	100.0	100.0

Mode of Study Comparisons, by level

TABLE 17: Credit Enrollment (FTES) Preliminary/Foundation

	1984	1985	1986	1987	1988	1989
Full-time	379	361	432	440	414	447
Science	209	218	267	254	238	268
Social Science	170	143	165	186	176	179
Extension	272	225	203	288	264	629
TOTAL:	651	586	635	728	778	1076

TABLE 18: Credit Enrollment Percentages Preliminary/Foundation

	1984	1985	1986	1987	1988	1989
Full-time	58.2	61.6	68.0	60.4	53.2	41.5
Science	32.1	37.2	42.0	34.9	30.6	24.9
Social Science	26.1	24.4	26.0	25.5	22.6	16.6
Extension	41.8	38.4	32.0	39.6	46.8	58.5
TOTAL:	100.0	100.0	100.0	100.0	100.0	100.0

Within the Preliminary/Foundation programmes, the full-time student numbers increased by 68 students, mostly in science (Table 17). However, the extension students increased by 357 students, or by 131%, most of these being in Social Science. Significantly, the proportion taught through Extension increased from 42% to 59%.

TABLE 19: Credit Enrollment (FTES) Diploma/Certificate

	1984	1985	1986	1987	1988	1989
Full-time	259	223	346	335	266	370
Extension	56	99	167	188	137	168
TOTAL DIP/CERT FTES	315	322	513	523	403	538
Perc. Full-time %	82.2	69.3	67.4	64.1	66.0	68.8
Perc. Extension %	17.8	30.7	32.6	35.9	34.0	31.2

The Diploma/Certificate programmes show an overall increase of 223 students, a 71% increase over 1984. The full-time and extension both show about the same absolute increases of around 111 and 112, although the proportionate increase for Extension Diploma/Certificate programmes was 200% compared to only 43% for full-time students.

TABLE 20: Credit Enrolment (FTES) Degree

	1984	1985	1986	1987	1988	1989
Campus Degree	990	987	1060	1154	1078	1119
Full-time	884	890	955	1068	992	1030
Part-time	106	97	105	86	86	89
Extension Degree	259	331	336	315	319	466
Under-Graduate Deg.	1249	1318	1396	1469	1397	1585
Post-Graduate FTES	52	36	64	106	61	66

TABLE 21: Percentages of Total Degree FTES:

	1984	1985	1986	1987	1988	1989
Percentage Campus	76.1	72.9	72.6	73.3	73.9	67.8
Percentage Extension	19.9	24.4	23.0	20.0	21.9	28.2
Percentage Post-Grad.	4.0	2.6	4.4	6.7	4.2	4.0

As in the overall student enrollments, degree students taking courses through the Extension mode increased by 207, growing by 80% and taking their share of all degree students from 20% to 28%. Campus students increased by only 129 students, with a growth rate of 13%. Their overall share of degree students declined from 76% to 68%.

Figures on distance education graduates in this section are of limited value because students are recorded as Extension graduates only if they apply through Extension Services to graduate. They generally do (for logical reasons) only if they are completing the final course(s) of their programme of study in the distance mode. While a substantial number and range of courses are available at a distance, only a limited number and range of programmes are able to be completed fully and finally in this mode. Many USP graduates not classified as Extension, therefore, may either have begun their studies as a distance student and then transferred to one of the campuses, or have completed all but their final course(s) as a distance student, or have simultaneously studied throughout their programme as part-time in both modes. Finally, some USP graduates classified as Extension, moreover, may have pursued most of their studies on-campus and completed only their final course(s) as a distance student.

While foregoing considerations cause obvious difficulties with data on distance graduates? they arise quite positively from a policy of free movement available to all students between the two modes of study. With the modes' being regarded as equal in credit and quality, students may move to and fro without academic and administrative barriers. Only in those programmes unique to the distance mode, such as the Diplomas in Librarianship and

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Legal Studies, and the Certificate in Teaching English as a Second Language, are Extension graduate numbers not able to be subsumed in internal graduate data.

The breakdown for 1988-1991 is as follows:

	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	
Certificates	102	118	84	91	
PGCE	10	?	17	6	
Diplomas	20	29	23	58	
Degree	<u>1</u>	<u>11</u>	<u>4</u>	5	
	<u>123</u>	<u>158</u>	<u>128</u>	<u>160</u>	<u>419</u>

Note 1. PGCE, the Postgraduate Certificate in Education

Note 2. The 1991 figures do not include all of this year's students who will complete their studies but who are awaiting final results.

As Extension enrollments during this short period were 41,959, the graduate total indicates the extent to which students do move between modes and choose to/or must complete their studies on-campus.

International Affiliation and Co-operation in Distance Education

USP is an institutional member of the International Council for Distance Education (ICDE), the Australia and South Pacific External Studies Association (ASPESA) and is currently, in collaboration with the Solomon Islands College of Higher Education (SICHE), seeking to establish a South Pacific Association of Distance Education (SPADE). Individual members of staff hold membership in the Asian Association of Open Universities (AAOU) and the Distance Education Association of New Zealand (DEANZ).

The Vice-Chancellor of USP is an associate member of the Council of the University of Papua New Guinea (a mutual arrangement), the New Zealand Vice-Chancellors' Committee, the Australian Vice-Chancellors' Committee, the Councils of the National University of Samoa and SICHE, the Association of Commonwealth Universities, the South Pacific Organisations Co-ordinating Committee (SPOCC) and the South Pacific Forum.

Co-operative relationships of many kinds exist between USP, other institutions and international agencies. These tend generally to be department, discipline or programme specific. Their multifarious nature is perhaps unsurprising in view of the facts that, in statutory terms, USP is itself an international entity; that 40% of its staff (these mainly at senior/academic level) are citizens of countries outside the South Pacific, bringing with them to USP many international contacts; that a developing institution in a developing world appropriately looks beyond itself for particular resources; that aid-funding in itself can create institutional linkages, in terms of the conditions adhering to donation; that, in an increasing number of academic research and teaching areas, the University is establishing international expertise (e.g. in the Environmental and Marine Sciences, Pacific and Development Studies).

Examples of linkages which relate particularly to the University's extension activities, however, would in 1990-1991 include the following: with Simon Fraser University and the South Pacific Commission for the development of Nutrition Training materials;

with the French University of the Pacific (L'Université Française du Pacifique) in a formal Accord for support of Francophone students; with the University College of Central Queensland and the AIDAB Centre for Pacific Development and Training for the development of a diploma level course in Economics; with Massey University and the University of Papua New Guinea for the examining of their students resident in the USP region; with numerous New Zealand and Australian universities for staff development attachments; with UNICEF and the Pacific Preschool Council in the development of a distance Diploma in Early Childhood Education; with the Commonwealth of Learning in research, staff training and materials-sharing activities.

The external aid/support profile of USP is exceedingly complex in that grants are numerous; made by many donors and various types of donors; may be direct to the institution for regional application, or indirect to national USP ventures through bi-lateral aid to respective member governments. It can be recurrent or project-related; it can be financial, technical or instructional. As an indicative profile, however, a summary of external aid directly received by USP in 1991 is provided.

TABLE 22: Statement of Aid Income and Expenditure 1991

	FS	FS
Income	12,356,400	
Expenditure		
Budgetary	1,973,000	
Capital Development	2,264,700	
Project Support:		
Staffing Assistant	2,506,966	
Staff Development	586,588	
Other Projects	5,025,147	
		12,356,400

Foreign Aid

A few examples of the diverse practical ways in which the direct and bilateral aid programmes have supported the University's extension activities in 1991 are new Extension Services Headquarters, Laucala Bay campus (Australia); new Library Building, Solomon Islands Centre (New Zealand); Early Childhood Education post, Extension Services Headquarters (UNICEF); Science Laboratory Equipment, Vanuatu Centre (Canada); Library Assistant posts, Vanuatu and Tonga Centres (New Zealand); Instructional Design and Mathematics Consultants, Extension Services Headquarters (Commonwealth of Learning); Preschool Co-ordinator post, Extension Services Headquarters (Nederland); Nutrition Training Project (Canada); Distance Education and Summer Schools Scholarships, (CFTC); Science Co-ordinator's post, Vanuatu Centre (France); Regional Survey of Science Teaching Facilities (Australia); Small Business Skills Consultant, Western Samoa Centre (New Zealand); Continuing Education Volunteer, Fiji Centre (Japan); Staff Development and Instructional Design Workshops, Port Vila, Suva, Sydney (Commonwealth of Learning).

Table 23: Aid Distribution by Donor Country/Organization

	Budget Support	Capital Aid	Staffing Assistant	Staff Developpment	Other Project Aid	Total Fiji\$
Australia	1,191,000	1,060,000	812,823	356,568	641,510	4,061,900
Canada			82,693		465,707	548,400
France			86,000		102,000	188,000
Japan			120,000		274,000	394,000
N.Z.	782,000	404,700	328,200	66,270	668,830	2,250,000
U.K.			861,250	163,750	90,000	1,115,000
U.S.A.			51,000		871,000	922,000
C.F.T.C.			165,000		187,500	352,500
EDI/WB					229,000	229,000
E.C.		800,000			1,228,000	2,028,000
U.N.F.P.A.					267,600	267,600
				Total AID Income		12,356,400

For USP, growth and expansion in terms of FTES, both internally and externally, is not a priority. Indeed, the policy in overall terms is for consolidation, control and the enhancement of quality. The University Council has imposed specific growth-limits, at least for the triennium (1991-1993); these are being strictly observed and will be reviewed by the next University Grants Committee for the 1994-1996 triennium. The Grants Committee's advice in October 1990, which became accepted as a future policy guideline, was that the University's 'standards are certain to fall further if it continues indefinitely to impose additional loads on already seriously overburdened staff'; that 'in terms of overseas aid, USP is likely to find it increasingly hard to attract such large sums as in the past'; that 'the University must ensure that the quality of existing services is not sacrificed in the interests of expansion, and that new initiatives are not introduced unless and until the additional and available resources needed for their successful operation on a continuing basis'; that 'special and particular attention' be given to the urgent needs of Extension Studies.

The recommendation, accepted by the Council, was that no significant increases in enrollment numbers should be allowed in 1991 Any increases in 1992 and 1993 should be kept to an absolute maximum of 5 % . Thus maximum FTES enrolments for the three years would be 3,500, 3675 and 3,755 respectively.

As the University Council comprises majority representation from member governments, the non-expansion has clear political support regionally. The freeze on

expansion and call for consolidation come after the seven years of a frozen budget, a frozen staff establishment, soaring numbers and a 40% F\$ devaluation. In response to the new policy, approximately 4,500 distance course enrollments were declined in Semester One 1991.

The projected increase in distance enrollments for the 1991-93 triennium was as follows in 1990:

TABLE 24: Projections of Extension Enrollments (FTES)

	1989	1990	1991	1992	1993
Estimate 1 (Total FTES)	1263	1496	1749	2022	2314
Estimate 2 (Total FTES)	1263	1398	1533	1669	1804
Regression (Total FTES)	1263	1199	1312	1425	1538
Number of Courses	151	160	186	202	229

Estimate 1 (a high estimate of 83 % growth between 1989 and 1993) assumed that the average annual aggregate FTES increase for all students between 1985 and 1989 would continue, and that the proportion of Extension students would continue to change linearly as it has from 1986 to 1989 (so that by 1993, they would be 54% of the total). Estimate 2 simply continued the 1984-1989 average annual increase of 135 in Extension FTES to 1993 (giving a 43% increase between 1989 and 1993). The regression estimate fitted a linear trend to the Extension FTES figures for the different programme levels between 1984 and 1989 and extrapolates the aggregate to 1993. Clearly little of this will be able to occur.

Problems and Issues

The following is a personal assessment and evaluation of hindering factors. In "Distance Education at the University of the South Pacific", the Commonwealth of Learning's review of USP's first twenty years, the international consultant team observes the context as follows:

There can be no other part of the world with as many challenges to the development of effective distance education as the region covered by the USP.... The problems which other institutions have to some degree, USP has on a massive scale.

The factors of this particular developing world context, which impinge on the effective implementation of distance education, are distance, regionalism, money and demand.

The common obstacles presented by distance itself in all distance education endeavours are massive for USP for one obvious and simple reason: the geographical vastness of its catchment/client region. This vastness factor is exacerbated by unreliable transport systems erratic communications technology, small communities' dispersal on minuscule land masses remote even from one another and from their national Centre.

Regionalism, on the one hand, is an enriching unique feature, but on the other hand, it presents organisational difficulties, educational constraints, multiple agendas and learning

needs.

Common financial concerns affecting education internationally are writ large for a provider dependent for its survival on aid-supported proprietors for 90% of its recurrent budget; on Australia and New Zealand for the further 10%; and on global aid-politics for its year to year non-recurrent budget. Long term planning; academic development and commitment; the recruitment and retention of experienced staff; costly equipment purchases and general capital expenditure are continually and/or underlyingly fraught with insecurity. From 1984-1990 the University operated on a frozen budget, diminished further within that time, in addition to inflation, by a major devaluation of the Fiji dollar.

Demand has exacerbated the financial situation. The student roll increased over these years by 44%. Separating internal from external increases, enrollments expressed as FTES grew by 19% on-campus and in Extension Studies by 115%. In real terms as a result, recurrent expenditure per FTES fell by 32%. Not surprisingly, these general factors distance, regionalism, money and demand - affect the external programme in quite specific ways.

Course materials and their range are limited by these factors. The effects of USP's developing world budget have been a frozen staffing establishment for the past seven years, staff salaries which are internationally uncompetitive, and frustrations with under-resourcing and work conditions. Academic staff turnover is, therefore, exceedingly high (60% of staff have held their posts for less than two years). The establishment at times must operate on 30% vacancy. Clearly, the long-term development and professional design of course materials are severely constrained by such unstable conditions. A course writer might leave during a development or revision process, be difficult to replace and not in time for process-completion. His/her eventual replacement is likely to come with little or no experience of the region and distance teaching, or with preferred other styles, course texts or focus. The results are that courses long due for revision often re-run unrevised for several semesters; that Extension's Course Developers - likewise too few on the ground - must often rush materials to production with little design input; that departments can make, with certainty, only short-term commitments to Extension course offerings (new, current and revisions).

Economic and distance considerations together combine to constrain materials-design in other ways. Our average distance student cannot be expected to meet the costs of expensive basic texts or additional materials other than print or audio cassettes. (Although the USP Centre can provide access to computers and VCRs, distance and islands-transport prevent this access from being general). Course design which fully integrates various media is precluded, therefore, in the interests of equity in the course market. Economic and educational factors constrain the provision and quality of external science teaching. No practical science courses are offered at degree level, and enrollments at lower levels amount to less than 3% of total enrollment. The constraints are a lack of suitable laboratories, either at the Centres or in local schools, and a lack of qualified in-country staff to conduct practical sessions.

Support services are also influenced by distance, money, demand and the regional context which create impediments like the following to effective learner-support. Some students, because of distance and/or cost will seldom or never get to their national USP Centre, thus conducting their course of study entirely at a distance, Centre libraries cannot offer outer-islands lending, through lack of qualified staff and sufficient books, in-country transport options and associated costs can preclude much outreach by Extension Centre staff;

qualified Local Tutors cannot be found in many subject areas; tropical conditions and power supplies which fluctuate damage technical equipment (for which there may be no local servicing); Centre visits and Summer Schools are costly exercises, requiring aid-fund support for which demand exceeds supply; the satellite network, reliant on local land-lines, sometimes fails in accordance with P&T resources, or is impaired by voice-distortion from the HF radio sites. Staff and students are, therefore, very reluctant to support tutorials, although the system is available to them twenty-four hours a day. Assignment turn around remains a major support problem, hampered by distance rather than by money; most work is marked on-campus (for consistent standards and/or a lack of qualified local staff); it, therefore, must run the gamut of regional transport systems. Islands shipping to the nearest Centre may be regular but only monthly; mailbag services thence to Fiji are regular but only weekly; assignments, course materials and even examinations can be off-loaded at any time by our servicing airlines, in deference to higher priority cargo. These time-lags and hazards are obviously encountered twice - inward and outward in the despatch process. Most students, therefore, face final examinations without having received back all or most of their coursework.

The attitudes of teaching staff towards distance education vis-a-vis face to face is a problem. At USP, as elsewhere, old habits and values die hard - or, perhaps, USP's being young and dual-mode from the outset makes it more apt to say, imported habits easily flourish. Although, as elsewhere, exceptional teachers do abound, valuing their distance work and students as equally important, the competing ethos is that real academic work is conducted on-campus, by way of personal research and teachers with an audience. The particular problems for USP in the existence of this attitude are that the distance education programme and students are, nonetheless, such a large proportion of its institutional commitment; they are not an ancillary or optional obligation as they can be in more traditional universities; that the regional mission of USP depends significantly on effective outreach education. Indeed, both the Renwick Report and the 1990 UGC Report to Council chose to remind the establishment of this fact:

Many universities have enlarged or added to their extension functions during the last twenty years ... What makes USP different ... is the high percentage of students studying for Certificates, Diplomas and Degrees through Extension modes. What makes it unique is the contribution its extension programmes make to the reality of USP as a regional University.

The delivering of Education through Extension is at the heart of USP's role as a regional university.

USP's holistic or integrated organisation of dual-mode education is both virtuous and dangerous. Its dangers are informal and, therefore, difficult to address. It bespeaks equal care for on-campus and distance modes and a collective institutional responsibility for outreach. It creates in practice, however, few day-to-day champions and defenders of distance causes. It attempts to administer a non-orthodox, new kind of institutional mission along the traditional lines of an orthodox model.

It courts the dichotomy which can arise between the theory and practice of integrated, collective management: that integration easily becomes dispersion, with control, responsibility, accountability and mandate so blurred in community that managing for change becomes dishearteningly complex.

There are further impediments to the effective implementation of distance education in this developing world; these could be said to relate to colonial attitudes. These seem to exist as strongly within the region and its citizens as without the region. Addressing the extra-regional attitudes first, colonialism and entrepreneurship tend nowadays to come in tandem, making assumptions about the Third World which are culturally/educationally arrogant. Developed world institutions in some parts of the globe presume that developing regions, per se, must be in need of them; that whatever they have to offer will be better or good enough. USP quite frequently turns away salespeople offering academic products in subject areas in which USP itself holds international reputation; offering distance education materials to an institution whose external development experience often far exceeds their own. This is not at all to say that USP has no interest in course acquisition from other providers; this is only to say that developing should not be (but often is) presumed to mean amateur or any seller's market. A quality distance programme in a developed country is not always a quality distance programme for the South Pacific. Yet through long colonial habit (and the wider human tendency to see the exotic as more prestigious), some regional governments buy in educational programmes which may be more expensive, less relevant in content and less appropriately taught than those available from USP. Both in the imported courses provided in-country and those which are accessed by physical re-location, there are curriculum issues with human resource development ironies: students studying the law of other countries' legal systems; not studying the Pacific environment to become regional geographers, Pacific History/Politics or Literature to become regional teachers; not studying Tropical Agriculture, Pacific Nutrition or Land Tenure. Such students inadvertently are being trained for export. Not always are these choices freely made within the market. Increasingly, aid to developing regions comes with tighter strings and more obvious entrepreneurship. These can preclude shopping for the most relevant programme, as bilateral funding is channelled back into the donor country. There must be concern, also, about scholarship-funding from aid, which in its application, can remove from a developing region (and thus from a USP) the most promising of its young people. Thus, colonialism and entrepreneurship from outside the region and traces of colonial cringe within it can combine ultimately to impoverish the region: its self-esteem, its local resource development and its young people themselves.

It would be valid to say that USP's distance education programme does require improvement in the quality of resource materials provided to students, and in access to these; the quality of support services available to students, and in access to these; the quality of academic and production support provided to course writers and teachers; the quality of administrative systems both at Extension Services Headquarters and the Centres, and the interface between these and the University's wider systems. These improvement needs are observably not unique to USP, but they are consequent at USP of quite unique factors: frozen funding, frozen staffing, soaring enrollments and regional conditions.

Despite these on-going challenges, however, there still is much to celebrate in the quality and effectiveness of USP's distance education programme. Against those odds described in the Renwick Report as being 'on a massive scale', the institution has produced and continues to produce - courses at least equal in quality to Much elsewhere. It has become a course vendor over recent years, not from entrepreneurial aims but in response to demand. It has honed within itself, over twenty years' endeavour, many professional skills in distance education. An unrelenting context is one of the finest training grounds, and this

one in particular demands patience and daily commitment. Extra-regional agencies of distance education would be advised to come with courage, humility and respect for its features.

For Pacific Islands students, whose environment is USP's own, the programme content, design, and support are planned responsive to their needs. Moreover, a pattern is now quantifiably emerging that USP trained students, more so than others, tend to remain in the Pacific returning their skills to the community. Such retention is a dire development necessity in all professional/vocational fields.

Auguring well for the future quality of USP's region-wide distance education are the further facts that the funding freeze has been lifted in 1991, with the Finance Ministers' decision for a 30% increase; that expansion of student numbers has at the same time been constrained; that distance education and extension support functions have been accorded initial priority in the increased level of funding; that many resources which will be freed by the withdrawal of on-campus Foundation Studies (almost 25% of 1989's internal FTES) are being applied to enhancement of the distance equivalent programme; that the major review of USP's distance education performance - funded by the Commonwealth of Learning and a full year in production - will shortly be received with its nineteen substantial recommendations; that the will continues strong to endure practical difficulties, to improve institutional performance in enhanced, expanded programmes; that the students keep on coming, in their thousands year by year, seeking distance study options as their only or more desirable means of access.

In his farewell address to the people of Kiribati, at the Graduation Ceremony held in Tarawa this year, Vice-chancellor Geoffrey Caston reviewed USP's special nature: its cultural wealth, its fields of excellence, the ways in which it serves. After his eight years of leading the University, it seems appropriate to accord his view the summary place:

USP offers to the people of Kiribati and the other countries of the region a university education and university research which are designed for the needs of the island countries themselves. As any international university should, it surveys the whole world of international scholarship and research, and selects and adapts from it those parts which are of most use to the particular communities it serves. It may not be possible to provide, for such a small population, economically viable programmes in all of the areas of higher learning, such as specialised engineering, architecture and so on. But I am certain that in those areas of higher education which we do cover, (and that is most of them) we provide far more effectively for the needs of Pacific Island students than the universities overseas which are the only alternative....

The quality of the work of this University is seen in the Commonwealth and elsewhere to be quite outstanding when compared to that in many other universities in other developing countries. Moreover, it is an international university of a kind which is almost without parallel elsewhere. Not just Regional but truly international, with its students drawn from many nations, small though they may be, and its staff drawn from even more. The importance of this should not be underestimated. Many of the values for which all universities should stand - and only a few do are those which transcend nationality and race. This has resulted in the creation at USP of an intellectual community of a kind I have not seen elsewhere. The Solomon Islander, the Tongan, the Fijian, the Indian, the i-Kiribati or indeed the European or American student coming to the University of the South Pacific has an important educational advantage which is denied to, say, the Australian or the British student going to a university in their own country. In the same way, the Samoan or American or British or i-Kiribati scholar working at USP finds himself or herself constantly challenged and stimulated by contact and even conflict with scholars from other cultures than his own.

Distance Education in Asia and the Pacific

The University shares with the countries that make it up the extremely unusual characteristic in the world of being both very very small and very very big. In my experience, its smallness helps it provide a caring and intimate environment for learning, while its bigness and immense diversity can enlarge the outlook and the capacity of all those, both students and staff, who come to work there.

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Research Activities

Although distance education at USP has always been an institutional rather than a sectional endeavour, research into aspects of distance education has tended to be undertaken only by the staff of Extension Services. To some extent perhaps, this is understandable in that career imperatives for academic teaching staff require that research reputation be established and maintained within their subject discipline and not in the field of teaching itself; in that the development, maintenance and support of distance education are the particular and primary tasks of Extension Services personnel.

Of the 120 substantive Extension staff members - located on the Laucala Campus and in the 10 USP Centres - 37 hold academic contracts. Although the tasks-requirements of these positions are markedly different from those held in teaching departments, the capability for and requirement of research still apply.

The on-going difficulty during the recent years of greatly expanding enrollment has been understaffing for the major administrative and support tasks which are immediate and daily. Pursuit of personal research activity has been, and continues to be, therefore, a luxury within working days. As J. Wallace has indicated in 'Extension Studies at the University of the South Pacific: An agenda for research', there is a wide and rich research field as yet untilled.

Over two decades, many research projects have been initiated by Extension Services. Of these, many have foundered through lack of sustainable resources (time and funding) or because of high staff turnover. For the many that have been completed, however, there has been an unfortunate lack of any central recording or systematic filing. Those that have been intermittently recorded are not accompanied by the details of the research team size requested.

The following list is not at all comprehensive, therefore. From those research projects known and recorded, a selection has been made with the intention of reflecting a useful range of interests.

Selective List of Completed Research Activities

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"Study of the Distance Education Institution in the South Pacific".

Joint research project in progress: "USP and the National Institute of Multimedia Education, Japan". NIME funded. Research Study team of 14; first monograph published July 1991.

"A Survey of Distance Education in Asia and the Pacific".

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"Survey of English Language Acquisition Programmes available in Australia".

Joint project between the Commonwealth of Learning and Extension Services, USP. COL funded (\$A23,000). Consultancy to be undertaken and completed in the first half of 1992.

"Survey of Science Teaching through Extension".

Research study to be completed December 1991. Survey Team of 4; funding of F\$20,000. Monograph to be published early in 1992.

"A study of the Performance of Extension Students who use Centre facilities".

Data collection and analysis completed. The report will be finished in 1992. Research Team of 3.

"Preliminary Investigation to Determine the Effects of Peer Group Tutorials in Reducing Drop-outs in Extension Studies Courses".

Phase One completed and report pending. Research Team of 3.

"Science Teaching at a Distance: The Effects of Using Audio Visual Aids for Practicals". In abeyance in 1991 for lack of funding.

"Measuring the Common Characteristics of Adult Learners Studying in the Distance Mode at USP".

Field Survey phase completed. Team of 2.

SRI LANKA

D.E.M Kotalawala

THE NATIONAL CONTEXT FOR DISTANCE EDUCATION

Serious attempts in Sri Lanka to provide education through the distance mode is of recent origin. This was largely due to the fact that a fairly wide network of primary and secondary schools and opportunities for tertiary education, seemingly catering adequately to the needs of the population, the economy and the infra structure of the state, were available in the country at the time of independence in 1948. The phenomenal expansion that took place after independence in the school system with the special thrust on educational opportunity for all and the introduction of free education and instruction in the mother tongue were responsible for spreading educational facilities even to the remotest parts of the island.

Distance education, however, became widely accepted at the national level as an important strategy to counteract the inadequacy of the traditional system of education to keep abreast of the new demands. Distance Education is seen as a means of passing on the benefits of recent advances in communication technology to the masses and thereby actualising the concept of a learning society.

Programmes for the professional training of teachers in service, the retraining of workers made necessary by rapidly expanding technological development, training unskilled workers already in the labor force, and providing continuing education facilities for acquiring competency in English or for a second chance education to school leavers and dropouts were already in use. Distance education is recognized as a cost effective means of achieving these goals.

The British left a legacy of a colonial economy based on export oriented plantation agriculture developed with British personnel and immigrant Indian labour. There was stagnating domestic agriculture and no industrialisation. Such an economy made few demands on local skills and labour.

The education system that the colonial rulers established reinforced the inequalities brought about by the unequal socio-economic development. After independence in 1948, massive programmes of social welfare, free health facilities, food subsidies and free education were some of the measures that brought relief to low income groups. These welfare measures resulted in a high physical quality of life in the seventies. During this same period there was a nationalist based restructuring of the school system. The opening up of central schools, a scheme of granting scholarships, charging the medium of instruction in all primary schools to the mother tongue and its progressive extension to the secondary schools and universities, the establishment of more universities, and the dismantling of the denominational school system brought about major reversals in the colonial education policy.

The number of schools increased from 4537 in 1945 to 8937 in 1963 and to 9494 by 1971, leading to a phenomenal expansion in educational opportunity. With the extension of instruction in the mother tongue to Grades 11 and 12 in 1958 and to universities in 1960, enrollment at both levels rose dramatically.

Equally dramatic was the change in the composition of the student population at universities. By 1967 the proportion of rural students had increased to 73% from 19% in 1950. Women students who amounted to 10.1 % in 1942 at the inception of the university rose to 40.3% in 1967. These changes resulted in an unemployment crisis within two decades of independence. The labour force increased by 2.7% to 3% from the sixties although employment opportunities grew at less than 2%.

This "mismatch between education and employment" as the ILO pointed out in 1971 was largely due to the failure of the educational system to pay adequate attention to technical and vocational skills and positive attitudes towards work as much as to the failure of an undiversified, non-industrialized economy to absorb them. The mismatch was obvious even at higher levels as a shortage of skilled manpower existed, along with unemployment among the educated.

The establishment of the External Services Agency of the University of Sri Lanka in 1972, the Sri Lanka Institute of Distance Education in 1976, and the Open University of Sri Lanka in 1980 form an integral part of an exercise in adjusting higher education and continuing education opportunities in a cost effective manner towards meeting the employment needs of the country and the educational aspirations of employed and unemployed youth who could not find places in other higher education institutions. For an island with a total area of 65415 sq km, a population of 14.8 million as enumerated in the 1981 census of the Republic of Sri Lanka means a population density of 230 persons per square kilometer. The 1981 population figure was an increase of 8.2 million over the 1946 census figures. Population projections for 1989 based on census data and vital registration statistics was 16.8 million and it is expected to reach 20 million by year 2000. According to the 1981 census data 50.9% were males. The ethnic distribution was 73.95 Sinhalese, 18.22% Ceylon and Indian Tamils, 7.05% Moors and .78% others. The demographic indicators seem to suggest a demographic transition resulting in the simultaneous fall of birth rates and death rates and a slow decline in the rate of population growth.

Shifting to the National Languages (Sinhala and Tamil) as the media of instruction in schools was the second recommendation made by the Kannangara Committee which initiated free education in 1945. It was an attempt to bring about equality of opportunity for access to education. While vernacular education had always been free, English schools were now free as well. The majority of the children who went to free primary schools and studied in the vernacular did not benefit from this, however. They seldom entered a free English school for secondary education at the end of primary education in the vernacular.

The mother tongue was adopted as the medium of instruction in all schools commencing with Grade 1 in 1945. In the 1950's, the medium of instruction beyond primary became an issue and the progressive extension of Sinhalese and Tamil continued until they were introduced as the media of instruction into the secondary schools between 1953 and 1959.

By 1970 the languages policy in education was further extended by making it possible to follow a large number of university courses (except in faculties of Medicine and Engineering) through the national languages. It enabled a large section of the rural population to enter universities and the main stream of public service. In 1950 the majority of university students, in fact 81%, was from English educated professional families. In 1967, 70% were from village and town council areas.

As a result of free education and the change in the medium of instruction to the mother tongue, there was a significant expansion in enrollment at the secondary school and tertiary levels. These policies were also largely responsible for reducing urban/rural and gender disparities in literacy rates and in raising the general educational level of the population. English continues to be used in the Medical, Engineering and Science Faculties of Universities. The Open University also follows this policy in relation to degree programmes in the Faculties of Natural Science and Engineering Technology. To facilitate this all Universities offer intensive English courses to new entrants. Most programmes are offered in all three media at University level, however.

Policy and Organisational Structure

The White Paper of 1987 took a comprehensive view of the education system as it existed and highlighted the inability of the employment sector to absorb even a fraction of the educated youth seeking employment, and the overemphasis on examinations and educational qualifications as recruitment came to be based on increasingly higher paper qualifications.

The White Paper recommended a restructuring of general education; the introduction of school clusters; pre-service training of teachers; creation of a district teaching service, changes in curriculum and evaluation methods upgrading the teaching of English in school; introduction of a three year technical stream parallel to grades 9, 10 and 11 in schools, and emphasized the role of the Open University in the tertiary education system. Introduction of life skills into the curriculum; continuous assessment in schools; establishing other tertiary level institutions to provide those not entering the university with opportunities for higher education in more flexible courses, the establishment of a National Education Council as an advisory body to government and a technical education authority; are a few of the other recommendations. Several of these recommendations were implemented and others are being considered.

In Sri Lanka the formal education system is comprised of three subsystems; general technical education, vocational education and higher education. The different provinces of the island have the same structure of general education. The present system of five years of primary, three years of junior secondary, three years of senior secondary and two years of collegiate level of education (5 + 3 + 3 + 3 + 2) was implemented in 1985. The collegiate level has the three main streams; Arts, Science and Commerce. Enrollment data in schools between 1953 and 1988 show an increase of 92%.

Enrollment rates in universities in Sri Lanka are very low even in comparison with some of the developing countries of the world. At the time of the inception of the University of Ceylon in 1942 enrollment stood at 904. A steady increase occurred thereafter with numbers rising to 2000 by 1950 and to well over 3000 by 1960 with the two new Universities, Vidyodaya and Vidyalankara (est. 1959), admitting students to degree programmes in Sinhala. In 1967 the grand total was 14,779. This figure remained constant for the next twelve years until it increased to 15,656 in 1979. Within a period of thirty-seven years the increase had been only seventeen fold.

From 1976 to 1984, the share of the GNP allocated for education (both recurrent and capital) had decreased from around 3% to 2.3%. There was a decline in recurrent expenditure during the same period from 2.91% in 1976 to 1.91% in 1984. Of this total

recurrent expenditure on education the share diverted to higher education had increased only marginally from 9.45% in 1979 to 10.85% in 1984. From 1980 to 1982 there was actually a drop. As a percentage of the GNP the resources diverted to recurrent expenditure on higher education annually has remained static at around 0.22% to 0.29% between 1979 and 1988. It is in this context that the Open University came to be established in 1980.

In 1989 there were twenty-nine divisional offices under which were a total of 511 post offices and 3330 sub post offices. In addition there were sixty-seven Agency Post Offices as well. A considerable extension of post office and sub post office facilities took place in 1988 as a result of the establishment of new settlements in the country under the Mahaweli Development project and in villages set up under the Garnudawa (village reawakening) programme. Statistics of inland postal facilities in relation to the population in 1988 showed that a population of 16,659,000 was served at the rate of one post office or sub post office for every 4305 persons. Land area served by each post office was 17 sq. km. on the average. However the area was as low as 2.6 sq. km. in Colombo and as high as 118.9 sq. km. in Mullaitivu. This largely explains the extensive utilization of print media in all distance education programmes in Sri Lanka.

Distance education in Sri Lanka has still not started utilizing telephone facilities as they are available only at the level of private subscribers. During the last few years the number of telephones in the country has doubled. In 1983 the number of telephones per 100 persons was 0.48. This increased to 0.54 in 1987. More than half the telephones installed are in the district of Colombo.

The newly passed Telecommunications Bill provides for the establishment of private telecommunication services. The Telecommunications Department will be the licensing and supervisory body and will ensure the maintenance of fair practices. It will also continue to be one of the telecommunication operators. A joint venture company to be set up by a Singaporean firm and the National Development Bank proposes to establish a data communication network. With such a facility the use of teleconferencing and telephone tutoring in distance education could become a reality, at least between study centres.

Between 1966 and 1971 the school radio service was renamed the Education Service with a greater degree of flexibility and freedom in its approach to programmes. Emphasis came to be placed on evening, late evening and night broadcasts. Morning broadcasts over Education Service came to be confined to school terms. This was a deliberate attempt to attract a new type of adult audience. Publications began to be sold to listeners and it is recorded that in certain subject areas the corporation sold more than 20,000 copies in one month (Gunaratna 1982). Between 1971 and 1977 broadcasting was specially used for the purpose of introducing the new curriculum and the new examination structure introduced into the primary and secondary schools. Expansion of medium wave transmission and the inauguration of regional stations between 1977 and 1982 coincided with the commencement of many informal and non-formal education programmes alongside the formal ones.

An important development during this period was the commencement of broadcasts to thousands of students who enrolled in the University of Sri Lanka External Service Agency established in 1972. Most of the broadcasts were in the fields of Education, Law, and English. The SLBC provided the OUSL with fifteen minutes air time free of charge at the beginning. This came to be extended to thirty minutes each of Sinhala, Tamil and English broadcasts from March 1986. However the OUSL does not use radio broadcasts for teaching purposes. The themes selected are of interest to both students and the general public. The

SLBC has now commenced FM broadcasts for all services and has extended medium wave transmission too. These should benefit educational broadcasts in many ways. The number of radio receivers estimated to be in use in 1988 was 3,224,323 (Statistical Pocket Book, 1990).

Sri Lanka Rupavahini (TV) Corporation was established under Act No.6 of the Parliament of the Democratic Socialist Republic of Sri Lanka in 1982, to oversee television broadcasting within Sri Lanka, to promote and develop the service, and maintain high standards in programming in the public interest. The regular educational transmission commenced on May 16 1983. The programmes planned for classroom use are prepared in close collaboration with the Ministry of Education. Special holiday transmission programmes are produced and telecast for the use of students, school leavers and adult population. Several other series of non-formal and informal programmes are produced and telecast in the evening for both students and adults.

Rupavahini's total telecast time devoted to ETV has increased from 240 hours in 1983 to 479 hours in 1989. This was a little over 16% of the total telecast time in 1989 and an increase of 46.5% over the previous year. In 1989, the time devoted to programmes in the local languages Sinhala and Tamil also increased considerably and consequently English programme time, which remained above 50% until 1987, dropped to 38.9%. Also in 1989, ETV programme time during morning school hours increased to 479.3 hours, from 327 hours in 1988, an increase of 47%. ETV has great potential in Sri Lanka as it reaches all parts of the country and the quality of reception is good. The number of licensed TV sets in 1989 was 43,000. However the distribution is very unequal, with one set for every fifteen persons in Colombo in contrast to one set for 195 persons in Vavuniya district. This, along with high cost of buying broadcasting time, has constrained the use of Rupavahini for regular telecasting of OUSL programmes.

Printing facilities are available in Sri Lanka in government, semi government and private organizations. In the government sector there is the Government Printing Press and the State Printing Corporation. The OUSL has its own press. It is equipped with offset machinery catering to all the printing requirements of the University. It undertakes and produces full colour printing with the help of the available resources. The press usually receives camera ready copies from the academic divisions. The demand on the OUSL press is sometimes more than it can handle. This is likely to continue in view of the fact that revision of course material and development of new programmes occur side by side with demands for the reprinting of already available course materials. The National Institute of Education also has its own press.

HISTORY AND BACKGROUND

The history of distance education in Sri Lanka at the government level goes back to 1972 when the Distance Education Branch of the Ministry of Education started the correspondence teacher education programme aimed at training older primary school teachers lacking previous professional training. This programme consisted of printed lessons sent to the teachers in their schools; weekly radio broadcasts; and residential sessions held during school vacations. Students were admitted to this programme in 1972 and 1973 and the programme was discontinued in 1976.

The second institution associated with distance education, the External Service Agency of the University of Sri Lanka was also established in 1972. This year marked the amalgamation of the then existing universities to form a single University of Sri Lanka. Prior to this, external degrees were available at the separate universities of Colombo, Peradeniya, Vidodaya and Vidyalandara. However the universities did not provide any tuition to the students who registered for the external degrees. Instead they recognized certain private institutions for conducting classes for their students. In 1972 when the single University of Sri Lanka was established, a single central agency for all external and extension services was also established. This innovation led to significant changes in the services provided to the external students.

The External Services Agency (ESA) provided correspondence lessons, face to face sessions, and residential courses in association with the Ministry of Education Correspondence Education Branch to external students who enrolled in the Post Graduate Diploma in Education programme. It started regular radio broadcasts for these students and for those who had registered for the external LL. B. degree programme or professional English courses. The use of broadcasting facilities by the ESA became an important aspect of educational broadcasting in the 1970's, so much so that the whole exercise was considered "the fore-runner of the Open University concept" (Gunaratne 1982) by the then Director of Educational broadcasting.

The ESA registered external students for programmes in Arts, Commerce, Law, Science, Education (Post Graduate), English and Pre-School Education. Correspondence lessons were used only in the education programme. It made extensive use of radio broadcasts along with face to face contact sessions. A total number of 46,000 students registered with the ESA between 1973 and 1978.

In 1976, the Sri Lanka Institute of Distance Education (SLIDE) was established to offer programmes in Mathematics, Science, Management, and Technology through the distance mode. It resulted from the merger between the Technical Education Extension Services Unit of the Ministry of Education and its Technical Education Curriculum Development Unit. The aim of establishing SLIDE was to provide tertiary level education for those unable, due to socio-economic reasons, to attend institutions of higher education and to provide vocational courses in areas where acute shortage of persons existed. It functioned under the Ministry of Higher Education. In 1979 SLIDE offered Electrical Technology, Electronics and Telecommunication Technology, Civil Technology, and Mechanical Technology. According to its brochure issued in 1978 these programmes were broadly modelled on the pattern of programmes provided by the City and Guilds of the London Institute. For those who did not possess a sufficient knowledge of Mathematics, Physics and Chemistry, SLIDE offered foundation courses, after which the student could proceed to the Higher National Certificate in Technology Part I programmes in any of the areas specified. The entire programme from HNCT Part I to HNCT part II covered seven years (3 + 2 + 2). The teaching package consisted of written lessons dispatched by post; face to face teaching sessions of one day's duration once or twice a month, generally during weekends, at various technical colleges in the island; seminars; radio cassette tapes with film strips and assignments given at the end of lessons. The students had to submit three to six assignments each month and received written comments and model answers. They were exposed to short periods of practical training in University/Technical College laboratories which formed the Regional centres. A system of counselling also existed at the centres.

The other programmes of study offered by SLIDE were the Higher National Diploma in Management, National Diploma in Mathematics and National Diploma in Science. The popularity of the programmes was such that the number of applications exceeded the number of places available and students were admitted on the basis of fixed quotas for employed and unemployed categories. Eleven thousand applications in 1976 increased to] 6,000 in 1977. The institution provided five programmes of study involving 4976 students in three languages, Sinhala, Tamil and English in 1979.

SLIDE was assisted by UNDP/UNESCO, SIDA, the British Council and the Japanese government in the form of expert services, equipment and training fellowships. The programmes were conducted under the direction of UNESCO/UNDP advisors and panels of consultants mainly from the Engineering Faculties of Universities. SLIDE enlisted the services of a large panel of lesson writers, editors and teaching staff as well. A Director headed the Institution. ESA and SLIDE were only seven years and four years old respectively when they were absorbed into the Open University and formed its nucleus of students and programmes in 1980. The absorption of SLIDE into the Open University of Sri Lanka explains one of OUSL's unique features, namely the strides it made in offering technical education through the distance mode.

The first statement of policy related to the establishment of an Open University in Sri Lanka appears in the National State Assembly Debates, Volume 23. No 1 of August 4th 1977. This volume of the National State Assembly Debates records the speech made by the then President of Sri Lanka on the policy of the new government that came into power in 1977. There he stated that the government will, "Establish an Open University for the benefit of those who are unable to continue university studies for reasons beyond their control. "

General pronouncements made in this policy speech and other reforms envisaged in the field of education bring out the reasons for the decision to establish an Open University. In the speech delivered by the then secretary to the Ministry of Higher Education at the inaugural ceremony of the OUSL in 1980, he outlined the reasons for the establishment of the OUSL in the following terms.

We are inaugurating the Open University of Sri Lanka for the purpose of providing higher educational facilities of those who are not students of any of the traditional universities. The demand for university education in this country is well known. Last year more than 100,000 sat the G.C.E. A/L examinations.....Nearly 30000 have gained eligibility to apply for admission to a university. Only 5000 can be admitted.....

Increasing the number of universities is very expensive..... It is for these reasons that the government has thought in terms of an Open University where the cost per student is much less - about one third that of a student in a traditional university and where much larger numbers could be catered for (Kalpage, 1988, p.73).

The next mention of the Open University and its role comes in the Education Proposals for Reform General, University and Tertiary, of 1981. In the introduction to this document, popularly known as the White Paper, the pressing problems created by large numbers of youth of both genders with more and more years of schooling and no enhanced employment prospects; the country's economy which was then facing serious problems; the failure to expand modern section employment opportunities; the rising level of educational

qualifications needed for various grades of employment; the inability of the university system to expand to the same extent as the school system; the absence of a system in the true sense of the word for technical and vocational education; and the need to expand support and guide this critically important sector in order to optimize the development of skills and the utilization of human resources are highlighted.

Its recommendations under 'Open University' reads as follows:

The strategy of the Open University will be significantly different from that of the other universities. As its very name implies it will afford access to those in employment and others who cannot devote their full time to studies thereby helping them to re-enter the educational system to improve their education by following graduate courses. It will concentrate initially on Diploma and Certificate courses in Mathematics, Science, Management Studies, Electronics and Communication Technology, Electrical Technology, Civil Engineering Technology etc. to meet urgent manpower requirements in these fields.

Foundation courses will be provided for the benefit of those who do not possess adequate knowledge to pursue satisfactorily tertiary level courses offered by the Open University (Section 104 p. 16).

The above account brings to the fore the conditions at the end of the 1970's in Sri Lanka in the education and employment sectors that led to the establishment of the Open University. A firm basis for the establishment of an Open University in Sri Lanka was laid down in the Universities Act No 16 of 1978. Part IV section 23(i) of this Act states that the Minister may, in consultations with the Commission (UGC) by an Order (hereinafter referred to as an "Open University Order"),

(a) establish an Open University for the purpose of providing higher educational facilities to those who are not students of any of the institutions referred to in sections 21, 22, 24, and 25 (XIV/151).

The mention of these sections prevents students from enrolling at the OUSL who are already enrolled at another university, campus, University College, or any institution recognized by the Commission for the purpose of providing courses of study approved for the examinations of a Higher Educational Institution. The Order under section 23 (1) came on May 8th 1980 (The Open University Handbook p.1).

It must be noted that the term 'distance education' as the teaching strategy of the Open University is not mentioned in any of the documents quoted above. With the incorporation of the ESA and SLIDE in the Open University it was perhaps left to be understood that the teaching strategy would be distance teaching. The Corporate Plan for University Education 1984-1988 of the University Grants Commission (1984) states that the Open University is to provide 'alternative' learning opportunities to meet the demand for middle level skills and to reduce the demand for conventional university education.

Among the recommendations made at a national workshop organized by UGC in collaboration with UNESCO it was stated that courses should be structured in the Open University so as to meet, where practicable, "both unmet social demands and management needs, taking into account programmes already conducted at traditional universities, the maintenance of standards and the availability of staff resources" (Indraratna, 1987).

Although the mode of instruction was left to be understood, these pronouncements made clear the role that the Open University was expected to play in the field of tertiary education.

The other major institution that has two of its departments conducting distance education programmes is the NIE which came into being with the passing of the National Institute of Education Act, No. 28 of 1985. Among the stated objectives of the Institute is providing and promoting postgraduate education in the several specialties of education, and providing for the development of professional and general competence of personnel in the education system.

At the time the N.I.E. was created there were various units of the Ministry of Education established to achieve the above objectives. The Distance Education Unit was one of them. This unit was established in the Ministry with financial support from SIDA to provide for the training of non-graduate teachers in the education system. The limited intake to the existing teachers' colleges and the inability of the Ministry to release large numbers of teachers for institutional training because of the severe shortage of teachers in schools led to the establishment of this alternative arrangement. There were almost 35,000 untrained teachers in 1981. This unit along with a few other such units in the Ministry were absorbed into the NIE. It came to be known as the Department of Distance Education (DDE). The Department of Teacher Training (DTT) that handles post graduate teachers education was constituted after the NIE was established in 1985.

Course material development was first undertaken by the Ministry of Education in association with the ESA for the Post Graduates Diploma in Education correspondence course in 1973. A group of university teachers selected from Faculties of Education were assisted in writing lesson material by selected secondary school teachers who had post graduate professional qualifications. These teachers were selected for a period of six months to work with the university teachers. Material production was handled by the Ministry of Education. The lessons were not written at that stage in a distance education format, but were in lecture style with questions and references at the end of chapters. The lesson writers did not have any training in the art of writing lessons for distance students prior to commencing the task. ESA also utilized time on the Education Service of the SLBC for broadcasting recorded lessons on a regular basis. This was in addition to face to face sessions once a month and an annual residential programme, which had a compulsory practical component and a project. Practice teaching which formed the practical component was carried out through 'Master Teachers' appointed from among professionally qualified teachers. They supervised the teachers in their own schools for a period of three months.

SLIDE undertook the task of material preparation in a more systematic manner. Course material was prepared with advice on how to write for distance students. Seminars and workshops were held for training the lesson writers. Two-way communication between student and teacher as well as periodic assessment was ensured through a system of assignments and counselling. The practical component consisted of face to face and seminar sessions. The use of audio cassettes and slides provided further assistance to the learner.

From its inception, the OUSL used considerable resources for developing course material according to the accepted distance education format. Staff training was given both locally and abroad for this purpose while at the same time the services of foreign and local consultants were utilized to guide the course teams. The availability of UNESCO/UNDP funds enabled the OUSL to undertake such training and avail itself of consultancy services from abroad.

Audio recording facilities were available at SLIDE. These were transferred to OUSL. A separate audio recording studio was established in 1983, and a small video recording studio in 1987, to be expanded with aid from the Japanese government. The OUSL printing press commenced printing in 1981. These moves greatly facilitated the production of printed course material as well as audio video material at the OUSL itself. In almost all OUSL programmes these are combined in varying degrees with assignments for continuous, assessment, face to face sessions, tutorial sessions and laboratory demonstrations where applicable. Regular broadcasts over SLBC or SLRC are not used for purely instructional purposes at present.

The development of instructional media by the Department of Distance Education of the NIE and its prototype at the Ministry of Education has been done on a very systematic basis with the assistance of SIDA, the Swedish Company LiberHermods which has many years of experience in distance education, and the Department of Education at the University of Lund in Sweden. Although some of the training sessions especially for the staff of the Distance Education Unit were conducted in Sweden, the Swedish consultants ran a series of short workshops each of about two weeks duration with a specific focus and target group. During 1982 and 1983 alone, over ten national workshops were conducted for five different categories of staff: course writers, production staff, tutors, correspondence teachers and the administrative staff. They also produced handbooks for course writers, for tutors and for correspondence teachers (Dock, Duncan, and Kotalawala 1988). The programme which extended over a period of three years was conducted at Regional Centres located either in teacher training field centres or in schools. These centres are staffed by full time tutors who advise the trainees, distribute new modules, collect and mark assignments and organize and run contact sessions. The tutors also supervise teaching practice in the trainees' own schools. In 1981 the programme commenced with thirty such centres. The numbers have increased to 180 in 1991 as a result of the massive enrollment of 32,000 teachers for the programme. The centres are located on the basis of one or more in each divisional education office area. The Post Graduate Certificate in Education programme of the Department of Teacher Training of the NIE commenced in 1986, and was initially conducted only on a face to face basis during weekends. Module writing for this programme commenced in 1987 and they began to supplement face to face sessions in 1989. Module writing was done largely by staff from universities and they followed a common format adopted in developing self study material. The Department of Teacher Training also has its own study centres located in schools and they run a mobile library service for the student teachers. The programme is offered in Sinhala and Tamil languages.

When SLIDE was established in 1976 the costs of its full-time staff, other fixed costs, and overhead associated with SLIDE premises were born by the Ministry of Higher Education. Operational costs in 1979 totaled Rs.1,350,000 (around \$40,500) The cost of land, land improvement and structure outlay totaled another Rs.2,200,000 (\$66,000). Student fees were set to cover course related operational costs (Kaye and Rumble, 1981). In addition aid was received from UNESCO, ODA, SIDA, the British Council and the Japanese Government. Under the UNESCO project SLIDE received aid in the form of expert services, equipment and training fellowships to the value of Rs.8 million,

SIDA granted budgetary support to the value of Rs.23 million, the bulk of which was for the purchase of science equipment for the nine science laboratories, and technical equipment of the workshops which were set up. British Council assistance was mainly for

the purpose of purchasing library books. The monthly fee charged to students was a nominal Rs.25. A registration fee of Rs.50 per student was charged at the time of enrollment. SIDA assistance was available to the Ministry of Education. From the beginning of the programme in 1981, its Distance Education Branch assisted untrained teachers. Although details of the amounts granted during the initial years are not available, an annual grant of Rs.20 million (US \$500,000) was forthcoming from SIDA for running this programme. The grant from the Ministry of Education covers the cost of its full-time staff. An additional grant of Rs. 54,527 million (US \$ 1,350,000) was given in 1991 with the recruitment of 32000 untrained teachers to follow the programme. In the speech delivered at the inaugural ceremony of the OUSL, grateful mention was made by the then Secretary to Ministry of Higher Education of the assistance received from UNDP through UNESCO; the SIDA grant for equipment; and assistance from the British Council and ODA of Great Britain. Other than for equipment, assistance was for the development of programmes of study by experts, and for staff development.

According to UGC and OUSL records, UNDP assistance between 1980 - 1985 totaled US \$1,552,000. In 1985 the OUSL utilized a sum of Rs.33,27,014 of foreign assistance. The UNDP grant between 1987 -1991 as assistance to Phase III of the Technical Education programme is US \$417,000. The Government grant to Open University from 1984 to 1991 was: 1984 - Rs.39,650,000; 1985 - Rs.32,250,249; 1986 - Rs.45,425.145; 1987 Rs.48,932,803; 1988 - Rs.56,326,873; 1989 - Rs.96,070,000; 1990 - Rs.89,520,000. The government grant is utilized mainly for salaries of full-time staff and the new building programme.

Trends in the development of distance education in Sri Lanka are very positive. Open University enrollment has expanded from an initial 4000 in 1982 to almost 15000 in 1988. The present numbers remain steady at around 15000. Expansion in numbers at the DDE and DTT are more impressive. They are geared to the task of clearing the backlog of untrained teachers in this decade. The DDE enrolled a record 32000 teachers in 1991. The DTT also expanded its numbers from 650 in 1988 to 3400 in 1990 and to 7000 in 1991. The OUSL figures have been kept more or less at around 15000. Many applicants to some of the programmes must be denied due to lack of resources. Entrance tests are conducted for this purpose in the LL.B. degree programme and in the Post Graduate Diploma in Education programme.

With the establishment of the proposed University Colleges, demand for distance education courses will tend to increase as the Colleges are expected to follow a more flexible course, enabling students to leave at the end of the first year or the second year and gain employment. These students will have the opportunity to come back and join a university for further study up to degree level or follow courses at a distance and obtain their degrees.

LEGAL STATUS OF DISTANCE EDUCATION

The legal status of distance education in Sri Lanka is derived from the legal status of the institutions engaged in distance education. This is so because none of the legal documents associated with the establishment of the Open University or the National Institute of Education specify that the mode of instruction shall be distance education.

The National Institute of Education Act No. 28 of 1985 does not mention distance education as the mode of instruction it will adopt. However the absorption of the Distance Education Branch of the Ministry of Education to the NIE made it inevitable that the NIE carry out education through the distance mode. The Department of Teacher Training which came to be established within the NIE followed suit.

It must be mentioned that professional qualifications conferred by all three institutions are recognized by relevant professional bodies and by the Ministry of Education in the case of teachers. The Council of Legal Education has recognized the LL.B. degree granted by the Open University. The Institute of Engineers of Sri Lanka officially recognized the Diploma in Technology programme of the OUSL.

OVERVIEW OF THE CURRENT SITUATION

Aims and Objectives of Distance Education

As the Acts and Ordinances dealing with the establishment of the OUSL or the NIE do not deal with their role as distance education institutions, the aims and objectives of distance education in Sri Lanka have to be deduced from occasional pronouncements in relation to education, employment and the economy as well as from specific references in brochures and bulletins.

The policy statement by the new government in 1977 emphasized the critical importance of education for the development of the country. Among specific objectives related to education, the establishment of an Open University was mentioned for the first time. Other accompanying objectives state the overall aims of the government in the field of education. It is pertinent to note that some of these objectives are achievable through the Open University system. Government policy clearly envisaged the importance of a competent and qualified teaching force; the importance of opportunities and facilities to workers, farmers, youth and other less qualified persons to train and qualify themselves for better and new jobs; and the need for a scheme whereby students could study while being employed.

The end of the 1970's saw the need for restructuring and diversifying the economy and for introducing new technology. That the Open University was expected to be a panacea for increased numbers seeking entry to universities was clear from the speech delivered at its inauguration. It could cater to large numbers in a most cost effective manner. Opportunities for those who wanted to study at leisure and for those who did not have formal GCE, O Level and A Level qualification to re-enter through foundation courses were also mentioned.

The White Paper of 1981 is an official document which specifically mentioned that the OUSL will afford access to those in employment and others who cannot devote themselves to full-time studies, thereby helping them to re-enter the education system and follow graduate courses. The OUSL was expected to concentrate initially on Diploma and Certificate courses in subject areas such as Mathematics Science, Management Studies, Electronics and Communication Technology. The White Paper also mentioned Foundation courses. The OUSL more or less echoes these aims and objectives in its documents. The

Handbook of OUSL (p.2) mentions the following:

The growing conviction that education is not only for privileged groups in society or confined to childhood and adolescence; that all people should have access to the extent and the kind of education which their full development requires; and that recent education explosion has made it difficult for the national education system to keep pace with the demand for admission into existing institutions of higher education.

The brochures issued by the several divisions of the three faculties of the Open University specify the aims and objectives of the programmes in relation to the levels at which they are offered and the discipline. For example the brochure of the Faculty of Natural Sciences (p.11) lays down its aims and objectives in relation to the foundation programme as:

The foundation programme in science is intended to provide the required basic knowledge for students to register for the level 3 courses of the B.Sc. programmes.

What was stated as the aims of the Foundation courses in Science are true of Foundation courses in Social Studies as well. Completion of these courses were to enable the students to apply for entry to the LL.B. degree programme or any other degree programmes the Faculty of Humanities and Social Sciences want to offer.

Aims specified in the Diploma in Technology programmes make mention of the need for providing the country with a pool of manpower trained in the technical fields that can contribute towards raising standards of the productive and service industries. This is in addition to providing opportunities to those in related technical fields to improve their knowledge.

In the Faculty of Humanities and Social Sciences which offer a variety of programmes, the pre-school education programme is meant for those teaching in pre-schools without training, for those who intend to conduct their own pre-schools or become pre-school teachers or creche workers, and generally for housewives.

The aims and objectives of the Professional English programme are to "Provide a foundation for the use of English as a medium of free communication (and) use English in a professional capacity or in his place of work and prepare for studies at other levels of proficiency". The teacher training programmes of the two departments within the NIE has as their general objective the provision of opportunities for the development of professional and general competence of personnel in the education system.

Control, Organizational and Management Structure of Distance Education

The two institutions that provide distance education in Sri Lanka are both government institutions. As such, distance education in this country could be called a national venture. Although the Open University charges fees, they amount to roughly 60% of the cost of providing tuition for any of the programmes. The balance comes as a government grant from the University Grants Commission. Teachers who get their training through the two Departments of the NIE do not pay any fees. This could be called an extension of the national policy of free education. The Open University is empowered by its ordinance to 'demand and receive fees'.

OUSL as presently structured and organized, operates from a central campus at Nawala in the suburbs of Colombo. There are four regional centres located at Colombo, Jaffna, Kandy and Matara, and twelve study centres throughout the country which come under the ambit of the regional centres.

The Vice Chancellor is appointed by the President and is the Principal Executive Officer and the Principal Academic Officer of the University. There is provision for the appointment of a Deputy Vice Chancellor.

The authorities of the OUSL are the (a) the Council, (b) the Senate, and (c) the Faculty Boards of the three Faculties. Each Faculty is headed by a Dean and presently has five Divisions.

The council is the executive body and the governing authority of the OUSL. The Council is composed of one Vice Chancellor from outside the OUSL, nominated by the Committee of Vice Chancellors and Directors, the Secretary to the Ministry of Higher Education or his nominee, Secretary to the Ministry in charge of broadcasting, and other members appointed by the UGC from among those who have rendered distinguished service in educational, professional, commercial, industrial, scientific or administrative spheres. The academic authority of the OUSL is vested in the Senate.

The Senate consists of the Vice Chancellor, the Deans, the Director of Educational Technology, Heads of Divisions, all permanent Professors of the University, the Librarian, and two other members elected by the permanent teachers of each Faculty from among their number. The Senate controls the general direction of instruction, education, research and examinations in the OUSL. It has the authority to appoint Standing Committees, ad hoc Committees or Boards that would make recommendations to it in relation to special areas such as Library, Admissions, Research, Curriculum, Evaluation, Leave, and Awards.

Any matters relevant to programmes or courses of study, examinations and other areas of academic interest must be approved by the Faculty Boards prior to submission to the Senate for its approval. The process of initiating all academic decisions begins at the Divisional level with the assistance of Consultants and course teams where applicable.

The task of maintaining academic standards is ensured by appointing as course team members, staff from other Universities and Institutions of Higher Education or eminent members from industrial, commercial, legal, scientific, or managerial spheres. Any appointment as a course writer, tutor, visiting lecturer, moderator of question papers, and marking examiner must be initiated at the Divisional level and undergo the process of council approval.

At Senate and Senate sub-committee levels, matters related to all Divisions of the three Faculties are communicated to the members. It forms one of the mechanisms for in-house dissemination of information.

There is close communication between the central campus and the regional centres. They are linked by radio and special courier service to the center. Regional centres are administered by Assistant Directors of Regional Services and the study centres by Officers in charge. Inter-Faculty teams of senior staff from the central campus visit the regional centres occasionally after prior announcement so that students who wish to have individual counselling can meet them personally. Staff from the central campus travel to regional and study centres at student registration time as well to provide guidance and counselling.

The Regional/Study Centres provide facilities for face to face teaching, text book reference, distribution of course material, handing over of completed assignments, audio

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listening, video viewing facilities, and study circle activities. The establishment of study centres and recruitment of tutors and correspondence teachers is the function of the management section in the Department of Distance Education.

The Open University monthly newsletter carrying general information of interest to students and specific details regarding academic programmes is dispatched to all registered students.

The authorities of the NIE are the Council and the Academic Affairs Board. The two Departments have Directors who are responsible to the Director General, the principal executive officer and the principal academic officer of the Institute.

The Academic Affairs Board is responsible for the academic affairs of the Institute. It advises the Council on all academic matters, considers matters referred to it by the Council, considers matters connected with courses of study, admission of students, and teaching programmes and examinations conducted by the institute.

The Department of Distance Education submits quarterly reports which are reviewed by the NIE and SIDA jointly. These reports are based on records maintained at the study centres and the observations of Chief Project Officers and Project Officers who visit the centres regularly. Officers from SIDA also make visits to the centres.

Financing Distance Education

Government grants, assistance by foreign agencies, and student fees are the main sources of financial support for distance education in Sri Lanka. In 1988 total Government expenditure on education (both recurrent and capital) was 3.17% of the GNP. The share diverted to higher education was 17.22%, or 0.55% of the GNP which was 0.58% in the previous year. Of the expenditure on higher education, about 71.7% was incurred on university education. It was 67.5% in 1987. It has fluctuated between 67% and 92% between 1979 - 1986. The UGC analysis of income of higher educational institutions mentions the following sources of income: government grant, interest, rent from properties, sales, fees, hostel recoveries, and miscellaneous. Entries under the Open University appear under all categories other than hostel recoveries. The two largest sources of income are the government grant and fees. Sale of publications is the third largest source of income to the Open University.

The Elementary and Science/Mathematics Teacher Training Programme conducted by the DDE is largely financed by SIDA. The government of Sri Lanka funds the local staff, provides buildings, furniture, fuel for vehicles, and money spent on mailing and other miscellaneous items. The SIDA funds are utilized for consultancy services in the area of training and for local staff to make study visits abroad, for office and audio-visual equipment, project vehicles, printing, paper, laboratory facilities, and for allowances to course writers, editors, assessment tutors and the tutors manning the study centres (Dock, Duncan, and Kotalawala, 1988).

The total allocation from Sweden for January 1991 to June 1992 is estimated to be Rs. 104,185,000 and an additional SEK 1,400,000. The total commitment by SIDA for 1991 is SEK 101,467,218 (DDE records). Between 1986 and 1989 SIDA had spent SEK 8.9 million on this teacher training programme. The amount spent during 1989 to 1990 was SEK 3,296,000. The increased grant in 1991 was made with the enrollment of 32,000 trainees for this programme.

All expenses of the Department of Teacher Training of the NIE for its post graduate teacher training programme come from the government grant to the National Institute of Education.

The chief sources of information for budgetary comparison between distance education and non-distance education are the UGC records for the Open University and a major research study conducted by the Research Department of the NIE for its Department of Distance Education. The UGC determines the annual grant per year on the basis of the average actual expenditure of the three previous years.

The comparison of costs show the average annual expenditure for an OUSL student in the Faculty of Humanities to be Rs.649 in 1990 and Rs.688 in 1991, whereas the average cost per law graduate in the University of Colombo was Rs.1927 in 1990 and Rs.1955 in 1991. Similarly in the Faculties of Natural Science and Engineering Technology the average cost for an OUSL student was Rs.4200 in 1990 and Rs.5355 in 1991. The corresponding figures for Engineering at the University of Moratuwa are Rs.17,686 for 1990 and Rs.17,489 for 1991. Costs per student in the Engineering Faculty of the University of Peradeniya are less. Cost per science student in non-distance universities varies from Rs.9966 to Rs.19778 during 1990 and 1991. These figures do not include examination and other non-academic expenditure, however.

The following tables are from an unpublished research study titled "Cost Effectiveness of Distance Education for Teacher Training", conducted by the Harvard Institute for International Development and the Research Department of the NIE (Nielson et.al, 1991).

TABLE 1: Total Direct Cost Per Student By Type of Institution and Source of Funds (In SRI LANKAN Rupees and US Dollars)

	<u>Teachers Colleges</u>		<u>Colleges of Educ</u>		<u>Distance Education</u>	
	Rupees	Dollars	Rupees	Dollars	Rupees	Dollars
overall	10,929	364	29,161	9972	4,160	139
To Sponsor	7,230	241	23,658	789	2,787	93
To Student	3,699	1213	5,503	183	1,374	46

TABLE 2: Net Direct Costs Per Student By Type of Institution and Source of Funds (In SRI LANKAN Rupees and US Dollars)

	<u>Teachers Colleges</u>		<u>Colleges of Educ</u>		<u>Distance Education</u>	
	Rupees	Dollars	Rupees	Dollars	Rupees	Dollars
overall	24,753	825	34,961	1165	4,024	134
To Sponsor	21,054	702	29,458	982	2,650	88
To Student	10,126	338	298	10	1,511	50

TABLE 3: Total Cost Per student (Including Opportunity Costs) By Type of Institution and Source of Funds (In SRI LANKAN Rupees and US Dollars)

	<u>Teachers Colleges</u>		<u>Colleges of Educ</u>		<u>Distance Education</u>	
	Rupees	Dollars	Rupees	Dollars	Rupees	Dollars
overall	12,507	417	36,241	1,208	7 662	255
To Sponsor	7,230	241	23,658	789	2 787	93
To Student	5,277	176	12,583	419	4,875	162

Distance Education in Asia and the Pacific

TABLE 4: Net Cost Per Student (Including Opportunity Costs) By Type of Institution and Source of Funds (In SRI LANKA Rupees and US Dollars)

	<u>Teachers Colleges</u>		<u>Colleges of Educ</u>		<u>Distance Education</u>	
	Rupees	Dollars	Rupees	Dollars	Rupees	Dollars
overall	26,330	878	42,041	1,401	7,524	251
To Sponsor	21,054	702	29,458	982	2,650	88
To Student	8,548	285	6,783	226	5,012	1676

The figures uphold the widely accepted contention that training teachers through the distance mode is much less costly to the sponsor as well as to the student than institutional training.

Geographical Coverage of the Provision of Distance Education

Distance education provision is nationwide. The regional and study centres of the Open University of Sri Lanka and the regional centres for Post Graduate Diploma in Education programme of the Department of Teacher Training are in Anuradhapura, Trincomalee., Polonnaruwa, Nichaweratiya, Chilaw, Kurunegala, Matale, Ampara, Kandy, Gampaha, Bandarawela, Nuwara-Eliya, Kegalle, Colombo, Monaragala, Kalutara, Ratnapura, Tangalle, Galle, and Matara. The Department of Distance Education of the NIE which plans to expand the number of its centres to 180 will do so on the basis of at least one centre in each divisional office area. The number of extra centres to be opened in any division will depend on the student enrollment and the media of instruction.

Instructional Systems

The teaching system adopted by the Open University is a multi - media integrated approach suitable for the conditions available in a developing country such as Sri Lanka. Printed material forms the major component of the study package. This includes printed texts, assigned books and recommended reading. The student is expected to devote about 55 % to 70% of study time to the printed material. The second important component is face to face contact, either at day schools or demonstrations, and practical work, depending on the needs of the particular course. Face to face contact sessions are highest in the English language programmes while demonstrations and practical work form an important component in Science and Technology programmes as well as in teacher training programmes. Approximately 15% of study time is expected to be devoted to these. Face to face sessions are used for group interaction, discussions, and counselling.

The use of audio-video material as an integral part of the study package is less frequent and varies from relatively high in English language and Law programmes to about 5% in others. Listening and viewing facilities however are available at the study centres for students to benefit from audio and video cassettes produced as support material. A selected number of these are broadcast by the Sri Lanka Rupavahini Corporation and the Sri Lanka Broadcasting Corporation for the benefit of the distant learner as well as the general public.

Assignments and periodic assessment through examinations form a compulsory component of the study package in all programmes. These are used as a teaching learning device as well as for continuous assessment of student progress. The grade for continuous assessment is important because it determines a student's eligibility to take the final examination in a particular course. In determining the final grade that a student obtains for a course, continuous assessment marks are given a weightage of 30%, with slight variation across Faculties.

The components of the Elementary and Science/Math Teacher Training programme conducted by the DDE are printed material, assignments for submission, contact sessions, local facilities, and practical training. Printed material in this programme comes in the form of a large number of modules, each module containing a single unit of a particular subject. The student teacher is expected to devote approximately one week for the study of the module and to attempt the assignment that accompanies it. Although each module is a single study unit, the student is advised to study them in the order that they are produced so that sequencing of subject matter is facilitated. The modules are planned so that the student will engage himself/herself in additional reading, self-innovations and surveys. The students are expected to submit one assignment per module, which are submitted to the correspondence teacher at the study centre for evaluation. Upon approval, the student then collects the next module.

Contact sessions form an important component of this programme. The organisers consider face to face sessions as a means of enhancing the effectiveness of study material and as a means of reducing drop-out rates and developing a group identity based around the study centre activities. These contact sessions take the form of one day study circles, usually once a month or more frequently; two day, practical sessions with a total of about eight per programme; and five day contact sessions with a broader focus intended for total teacher personality development. Eight such programmes are expected to be held within the period of three years.

Individual guidance and tutorial assistance is available to the student at the study centre through the full-time tutor attached to the centre. The tutor is also expected to visit the student teacher in his/her school to supervise practical training. Support services at the centres include library facilities and individual guidance.

The Post Graduate Diploma in Education programme offered by the DTT lays almost equal emphasis on face to face contact and printed study material. The student is expected to become familiar with the content of the modules in order to derive maximum benefit from the contact sessions.

The regional centres provide library facilities and audio cassettes with taped discussions on the issues arising from the content of modules. Video tapes produced for the purpose of developing teaching skills are also available at the regional centres. Face to face sessions at the centres take the form of lectures, group discussions and activities with emphasis on teaching and learning techniques such as individualised learning, learning by discovery and the activity method. Assignments and pedagogical practice form the other components of the learning package in this programme.

Language of Instruction

The following table lists the programmes and indicates the language in which each of them are offered to OUSL students.

TABLE 5: Language of Instruction, by Program

Name of Programme	Medium		
	Sinhala	Tamil	English
Foundation Course in Science and Technology	Y	Y	Y
Foundation Course in Social Studies	Y	N	Y
Certificate in Entrepreneurship	Y	Y	Y
Certificate in Pre-School Education	Y	N	Y
Certificate in Textile Technology	Y	N	Y
Certificate in Journalism	Y	Y	Y
Diploma in Technology	Y	Y	Y
Diploma in Management	Y	N	Y
Diploma in Distance Education	N	N	Y
Bachelor of Science Degree	N	N	Y
Bachelor of Laws Degree	Y	N	Y
Bachelor of Technology	N	N	Y
Post Graduate Diploma in Management	N	N	Y
Post Graduate Diploma in Education	Y	Y	N
Post Graduate Diploma in Construction Management	N	N	Y

The two teacher training programmes offered by the Department of Distance Education and Teacher Training of the NIE are conducted in Sinhala and Tamil. This follows from the fact that the media of instruction in schools are Sinhala and Tamil.

Enrollment in Distance Education

Enrollment at the OUSL as of May 91, distributed across levels, is as follows:

Foundation level	2941
Certificate level	3431
Diploma level	3381
First Degree level	2464
Post Graduate Diploma	2015
Computer Awareness Programme	1964
<u>Total</u>	15926

The DDE (NIE) offers only one programme, namely the Elementary and Science/Mathematics Teacher Training certificate and the most recent enrollment is 35,000. The Department of Teacher Training (NIE) conducts only the Post Graduate Diploma in

Education Programme and the most recent enrollment is 7,000. Enrollment figures to compare distance education with non-distance education are available only up to 1988/89 as there was no intake in 89/90 due to the closure of the universities. The following table gives the enrollment figures at relevant institutions for different levels in 1989.

TABLE 6: Enrollment for 1989, By Level

Enrollment ratios worked out on the basis of the above figures are as follow:

Programme	Institutional		Distance		
	Technical	Teacher Colleges Colleges	Open Training	University	National Institute of Education
Certificate	64	11626		3444	
Diploma (not post Graduate)	838	4267		2798	
Degree	29775			4337	
Post Graduate	248			2652	1400
Trained Teachers Certificate			3500		3005

Enrollment ratios worked out on the basis of the above figures are as follow:

Programme	Institutional Training	Distance Training	(2) (1)%
Certificate	11690	3444	29,4%
Diploma (not postgraduate)	5105	2798	54,8%
Degree	29775	4337	14,5%
Postgraduate	248	4052	446,7%
Trained Teachers Certificate	3500	3055	87,3%

* Student numbers enrolled in postgraduate and teacher training certificate programmes through distance education have increased many fold in 1990 and 1991.

International Affiliation and Cooperation

The Open University of Sri Lanka has membership in the Asian Association of Open Universities, International Council for Distance Learning, Distance Education Regional Resource Centre, International Association for Continuing Engineering Education, and The Association of Commonwealth Universities.

Distance Education in Asia and the Pacific

The following table gives the details of foreign aid received by the Open University between 1984 and 1990.

TABLE 7: The Open University of Sri Lanka Foreign Aid

	1984 Rs.	1985 Rs.	1986 Rs.	1987 Rs.	1988 Rs.	1989 Rs.	1990 Rs.
Library Books	178,237	14,522	1,087,184	221,279	131,316	102,996	23,489
Equipment	5,691,692	3,506,031	-	4,040,194	11,018,490	10,208,721	1,217,146
Office Equipment	-	19,735	718,116	-	-	-	26,165
Teaching Equipment	-	344,774	1,521,714	2,118,369	-	-	-
	<u>5.869.929</u>	<u>3.885.062</u>	<u>3.379.842</u>	<u>6.379.842</u>	<u>11.149.806</u>	<u>10.351.717</u>	<u>1.266.800</u>

Source: Open University of Sri Lanka Finance Division

According to information available in the Statistical Hand Book 1988 of the University Grants Commission, the following foreign grants have been made to the Open University.

<u>Source</u>	<u>Year</u>	<u>Amount</u>
UNDP	1980-1985	US S 1552 million
UNDP	1987-1991	* US S 417,000

* As assistance to the Technical Education Programme. Phase III.

A request was made to the Japanese government by the Sri Lanka Government in 1989 for grant aid to establish an Audio Visual Centre. The Basic Design study for the Project was carried out in February - March 1991. The facilities and equipment planned involve a studio complex of about 2000 square metres and equipment for the studios. In addition training of OUSL personnel with Japan's technical cooperation by sending experts from Japan on a long-term basis and by providing training to several persons from OIJS in Japan for short periods is requested.

The programme offered by the Department of Distance Education of the NIE has been funded by SIDA from its inception, and SIDA has spent on the average Rs.20 million (SEK 3.296,000) a year. In 1991 the grant was Rs.54 million. SIDA funds are utilized for consultancy services in the area of training and for local staff to make study visits abroad, for office and audio-visual equipment, project vehicles printing, paper, laboratory facilities and allowances to course writers, editors, assessment tutors and tutors staffing study centres.

There is no clear statement of government policy referring to planned expansion in distance education. However institutions engaged in distance education have framed proposals mostly in the direction of diversifying the programmes.

The Open University aims at a total intake of 30,000 students with planned expansion in the regional services. It is also working towards launching more programmes. In 1991 students have been registered for Foundation Courses in Social Studies and for a Certificate Programme in Journalism. Course development for a Postgraduate Diploma in Management and a Certificate Programme in Tourism is nearing completion in the Faculty of Humanities and Social Sciences. The Faculty has already framed regulations and submitted syllabi for approval for Master of Education and Bachelor of Education degree programmes. These would be interfaculty programmes. The proposed first degree in Humanities and Social Sciences also would offer a variety of subjects across the disciplines handled by the several Divisions of the Faculty.

The Faculty of Natural Sciences in 1991 commenced offering a course in Wild Life Management and continuing education programmes. Any courses offered by the Science Faculty can be taken singly as continuing education programmes. The Zoology Division also coordinates a Norad Project on Environmental Studies. A BSc. degree in Nursing and courses in Industrial Chemistry and Atmospheric Physics are in the initial stages of planning by the Faculty of Natural Sciences. Post graduate Diploma in Construction Management is a new programme for which students were registered very recently in the Faculty of Engineering. Two other areas in which Post Graduate Diploma programmes will commence are Industrial Engineering and Agricultural Engineering.

The Department of Distance Education is not likely to go beyond the present capacity of 35,000 students. It has submitted for the approval of the Academic Affairs Board of the NIE course proposals for expanding training facilities in subject areas other than Science and Mathematics included in the present package. The new subject areas in the proposal are History and Social Studies, Commerce, Home Economics, Agriculture, Physical Training, Art, Music, Dance, English, and Religion. The proportion of written module and face to face components in these programmes will vary according to the particular needs of the subject. However they will be made available to teachers through the same distance teaching network of study centres.

The effectiveness and quality of distance education in Sri Lanka is intended to enable the country to face the twentieth century. The demands on the education system are both quantitative and qualitative. With less than two decades of distance education experience it has come to be accepted as a most viable alternative to traditional models, for providing training and retraining facilities necessary for achieving this task. The newness, the capacity and the cost effectiveness of the distance mode makes it more suitable than the formal system to effect changes and to do so swiftly. Its ability to reach large numbers is a distinct advantage. The policy of the present government in relying on distance education for teacher training is a case in point.

Problems and Issues

In post graduate teacher training the three conventional universities together admitted an average of 275 graduate teachers a year between 1986 and 1988. Students were not admitted in 1989 and 1990. The Open University and the Department of Teacher Training of the NIE had 4815 students in all in 1990. Similarly all Teacher Training Colleges and Colleges of Education admit around 3500 a year to the teacher training programmes. The Department

of Distance Education of the NIE admitted 3055 in 1990 and has taken an additional 32000 in 1991.

The annual intake of the Faculty of Law of the University of Colombo is around 187 for the LL.B. degree programme. The Open University admits an average of 1000 per year. In Technical Colleges and affiliated Technical Units numbering twenty-nine in all there were 16999 enrolled for all courses at all levels in 1990. Enrollment figures in comparable courses at the Open University was more than one third that number.

The record is impressive and so is the recognition. The professional qualifications for teachers granted by the Open University and the two Departments of the NIE are recognized by the Ministry of Education as well as other relevant authorities to be on par with the certificates granted by conventional institutions for purposes of appointment, promotion, and salary adjustment. The Council of Legal Education has recognized the LL.B. degree granted by the Open University to be equivalent to the LL.B. degree granted by the University of Colombo. Certificates and Diploma in Management and Technology have been similarly recognized.

A recent study (BRIDGES REPORT) and the 1988 study sponsored by SIDA (Dock, Duncon, and Kotalawala) have ascertained the professional competence of teachers trained through the distance mode by the Department of Distance Education to be equal if not better than of teachers who have gone through non-distance training. The BRIDGES Report has brought out clearly the cost effectiveness of the programme as well. In these research studies the participant teachers pointed out many advantages of distance education. The ability to receive the training while remaining at home, receiving a large number of modules that continue to serve as resource material, and the ability to implement what is learned and receive feedback without delay because of continuous classroom contact during the period of training, figure prominently among the advantages. Being school-based during the period of training is a great advantage for the professional training of teachers.

With the vastly increased intake of the NIE Departments, the Ministry of Education expects the backlog of untrained graduate and non graduate teachers to be cleared within a few years, a feat that would have been impossible without resorting to the distance education mode.

This increased momentum to utilize distance education techniques has led to the development of support services and infrastructure facilities in the regions. These take the form of study centres, library facilities, trained tutors and activities involving groups of teachers. The high retention and pass rates in these programmes speak for the motivation generated among the teachers. These resources should facilitate the launching of other inservice short term programmes to continuously update the knowledge and competence of teachers even after the actual teacher training programmes shrink in numbers. The emergence of a group of resource personnel whose services will continue to be available in the remote areas of the country is a great advantage. Institutional training of teachers in the past never led to such a build up of resources. In this sphere the Open University lags behind the teacher training departments of the NIE as it cannot utilize to the same extent either the physical plant or the personnel made available to the NIE through the Ministry of Education. The proposed 180 study centres under the Department of Distance Education will be manned by senior and professionally qualified teachers on full-time secondment.

In a more general sense, the most important issues and problems facing distance education in Sri Lanka especially in relation to the Open University programmes centre around the need to maintain a continuous dialogue with student clientele and the need to

provide them sufficient support facilities to enable self-learning. In Sri Lanka mass media techniques such as television and radio broadcasting and telephone conferencing cannot be utilized for a number of reasons. Telephone facilities are not available even in most urban middle class homes. The high cost to the institution of buying time on radio and television is a deterrent itself. More so is the lack of rural electricity and uniform viewing and listening facilities across the country, especially in the rural and disadvantaged areas in outlying provinces.

The rural student also suffers from the lack of a cultural base for home study built around the availability of books, papers and media facilities on the one hand, and a positive attitudinal orientation towards self study on the other.

Most students young or adult in Sri Lanka are also beset with this need for external support to carry on their learning tasks a style of learning they have grown accustomed to within the formal school system where the teacher is the sole, or the major, resource. On the other hand, increased interaction is considered desirable psychologically as well, in order to maximize dialogue within groups that are socially and culturally alienated from the main stream. Such interaction helps to promote a sense of belonging and a group identity in addition to the support it lends to facilitate learning. Lack of such facilities can lead to distance education products which focus purely on knowledge content to be mastered through rote learning and to the exclusion of the affective fallout from the educative experience. Skill, practice, and learning to learn also must supplement theory, especially in the case of students who are entering the educative process after a lapse of time.

Perhaps it is because of these advantages that local support has not been dispensed with even in developed countries that have harnessed sophisticated techniques for delivering distance education. Local support goes a long way in reducing drop-out rates as well.

An important contributory factor to the degree of success attained by the Teacher Training Programme run by the Department of Distance Education is the establishment of a large number of study centres attached to the Divisional Education offices and financed through government and SIDA funds. The Open University finds the task of putting up buildings, manning centres and equipping them with library and other facilities costly. Having to levy high fees from students in order to recover costs other than the salaries of the university staff is a perennial problem for the Open University. Here again the Ministry of Education or foreign grants absorb all costs incurred in running the teacher training programmes of the NIE Departments. In an inquiry into reasons for student drop-out at the Open University, conducted in 1989, it was revealed that 43.7% of the drop outs (n = 222) cited inability to set aside a sufficient amount of money for fees and other expenses as the main reason for dropping out from courses.

Ironically it is to this same disadvantaged group that there is a pragmatic as well as a social need to pass on the benefits of a second chance education through the distance mode. It is within this group that we find the largest number of school drop outs and those who have taken up employment without adequate training or no training at all, and those who have failed to make the grade to enter other institutions of higher learning. It is largely the parents of this same group that require the assistance of their teenagers in their agrarian pursuits and therefore offer little encouragement to educational pursuits that need financing. The inability to incur travelling costs to reach study centres situated at distances could cause additional problems.

In Sri Lanka's context the remedy for this problem faced by the Open University is the availability of sufficient finances to set up a series of study centres equipped with listening and viewing facilities and well-stocked libraries so that the student can overcome almost all the drawbacks he or she experiences as a home based student. Increased student numbers will cut down costs to the students considerably. Lack of such well equipped study centres in the outlying areas demoralises present students, dissuades prospective students and also leads to an undesirable tendency to centralise activities around the main campus, incurring further strain on student finances.

The establishment of a scholarship scheme with outside contributions to the scholarship fund of the Open University has already benefitted some students who perform well on examinations but have financial difficulties in continuing with the programme. However high levels of performance on examinations require favourable conditions for self-study in addition to individual capacity.

The study on student drop-outs brought out other reasons that contributed to it. Among them are inadequate tutoring and counselling, insufficient practicals, and inability to complete the compulsory assignments in order to become eligible to sit the examinations. The unsuitability of printed texts and inability to reach the required level of competency in English were two other reasons cited by 20.7% and 10.5% respectively.

Distance education is undertaken mostly by adult learners. The content of distance education programmes tend to be moulded more or less on the model of conventional programmes available to younger and institutionalised full-time students because of the need for recognition and accreditation. Although the material is written in special self-study format, the programmes generally reflect the requirements demanded of conventional students. Learning is always an individual task. But for the home based student, learning is an individual activity to a much larger extent than for the institution based student. In this context the need to develop programmes in terms not only of content and format but also in terms of course completion requirements, so that adult learners have greater freedom as agents of their own learning, must be seriously considered. The distance education approach and requirements both have to be more practical and practicable. Rigid requirements are not in keeping with the distance education philosophy, although safeguards have to be built in to maintain standards.

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APPENDIX

Research Activities in Distance Education

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THAILAND

Chaiyong Brahmawong

THE NATIONAL CONTEXT FOR DISTANCE EDUCATION

During the past two decades Thailand has experienced distance education in various forms. In 1971, an open admission university partly using a distance education approach was established and named Ramkamhaeng University. On September 5, 1978, Thailand's first open university using a full concept of distance education was established named Sukhothai Thammathirat Open University. Meanwhile, the Department of Non-Formal Education began its distance education programmes at the Elementary and Secondary Education Levels for out-of-school youth to study for an Elementary or Secondary Education certificate.

Thailand is one of the oldest nations in Asia. With a long history under a democratic system of government, it is making rapid progress both economically and politically to become a center of Southeast Asia. Thai history dates back more than a thousand years to when Thai people gradually migrated from their kingdoms of Ailao, Nanchao, Yunan and Sibsong Panna in the Southern part of China to their final settlement at the present location on the Suwannabumi (Gold) Peninsular. Thai people established their first capital of Sukhothai (the Dawn of Happiness) around 1290 A.D. During a period of more than eight hundred years, the capital of Thailand was later moved to Ayuttaya in 1350, Thonburi in 1767, and Bangkok in 1782 A.D.

Situated in the center of Southeast Asia, Thailand's territory covers a land area of approximately 513,115 sq. kms; bordered by Burma in the north and the west; Lao in the north and the northeast; Kampuchea in the east; Malaysia, the Pacific, and the Indian Oceans in the south. Half of the land is under cultivation, with the rest remaining forest and savanna.

Geographically, Thailand is divided into four main parts; the Central, the North, the Northeast, and the South. The Central part where Bangkok is located is a low, fertile basin around both sides of the Chao Phya, Thailand's biggest and most important river which passes through the middle of the country; the Northern part is half flat and half mountainous; the Northeastern part, covering the country's largest area, is a high and dry land; and the Southern part is flat and fertile covering the peninsular stretching south from the Central part to the northern border of Malaysia. It has a tropical climate with a high degree of humidity and the average temperature of 28.9 C.

Thailand is an agricultural nation and expected to become a newly industrialized agricultural country (NIAC). It has a population of 56 million (1990), 43% of which are younger than age fifteen, with a growth rate of 1.6%. Only about 6 million cluster in Bangkok, while 90% of Thais live in the rural areas. The majority of the people are engaged in agriculture, forestry, and fishing.

Bangkok, the capital, is the center of commercial, political and modern social life. All governmental agencies, business centers, social and cultural activities are located in the Greater Bangkok area.

Thailand is a free market economy state in which public and private sectors share equal opportunities in the development of the country. The public sector is in charge of the general administration of the country and the welfare of the people. State enterprises are established to take care of public utilities, as well as to launch new ventures which otherwise may be too risky for private sector investment. The private sector, on the other hand, takes care of businesses and industries not reserved by law to be operated by state enterprises.

Thailand's economy is growing steadily with the estimated Gross Domestic Production growth rate of 12% (1990). Exports of agro-industrial products such as rice, textiles, and the tourist industry, are the major sources of national income. In 1990, Thailand's Gross Domestic Product (GDP) was more than 1,032 billion Baht (US\$ 41 billion) with the average per capita more than 30,000 Baht (US\$ 1,200). The growth of the economy in Thailand might be credited to both the education of the Thai and the efforts of the Thai government. During the past ten years, Thailand has been under a democratic system, which has increased the confidence of foreign investors.

The educational quality of the Thai people was increased as the result of the Educational Reforms of 1960 and 1978. Classroom teaching allowed more pupil interaction, group process, and practical work compared to the previous teaching and learning styles where the teacher used the talk and chalk technique. At the post secondary school level, more business and technical colleges were established to produce young people able to serve in the rapidly increasing business and industry spheres.

The majority of the Thai people are engaged in agriculture, forestry, and fishing. Men and women are treated equally in terms of job opportunities and social status.

Most Thai are Buddhists (95%) with some Muslims, Christians, and others. Buddhism has a strong influence upon arts, literature, education, politics and ultimately the Thai way of life. The people, however, have the right to participate in any religious activities. Under the Thai constitution and practice, His Majesty the King is the upholder and supporter of all religions professed by the Thai people. Christians live in all areas of the country while most Muslims live in the South.

Although there are some ethnic groups, the largest of whom are Chinese, there is no conflict nor racial discrimination between the Thais and minority groups.

The language of instruction is Thai. Thailand has its own writing system. Foreign languages are not allowed as the medium of instruction except in international schools and in teaching and learning other languages. There are three major dialects: Southern, Northern, and Northeastern. People from other parts understand the different dialects without much difficulty.

Educational System

Thailand has a long educational historical background. Presently, its educational system is well established, ranging from pre-school to higher education level. It also has the most outstanding distance education system in Asia.

The educational system in Thailand has evolved from informal and non-formal types of learning starting in homes and expanded to Buddhist monasteries, workshop apprenticeship, and royal palaces for more than seven hundred years. Formal education began in the early 1870's. Home was the first learning institution. Parents taught their

children the three R's as well as the trades, socialisation, and in some cases, the arts of self-defense.

Buddhist monasteries offered Buddhist religious studies to boys to prepare them to become monks, which they all experienced for a period of time. This was usually for three months when they were twenty years old. The boys lived in the temple with senior monks who taught them how to read and write the Buddhist languages, Pali and Sanskrit, the Thai language as well as other necessary arts. Workshop apprenticeship took place in home industries and shops where boys came to live with the owner of the factories and learned the trade. They worked around the house and the factory without getting paid. In the Sukhothai and the Ayuttaya periods, certain prominent teachers offered private teaching at their homes. Young men would stay and learn in "Samnak" (camp or school). Most of the private teaching was about fighting arts. In royal palaces, educating princes and princesses to prepare them to live and work in the royal palace was undertaken by senior members of the royal families who were appointed as teachers by royal commands. Children of royal families learned the three R's, social, cultural, home economics, art, music, and for princes, the art of fighting.

In the time of King Narai the Great, a formal schooling system was introduced by Christian missionaries in Ayuttaya with the purpose of teaching the Bible to Thai people. Schools for young children and a college were established. In the years after the death of King Narai the Great, they were eradicated as part of a move to eliminate Christian influences upon Thai society.

Thailand was exposed to the western education system during the time of King Mongkut (Rama IV), who hired an English governess to teach his princes and princess. He allowed Christian missionaries to establish schools, the first of which was established in 1852, now called Bangkok Christian College (Secondary School).

During the reign of King Chulalongkorn (Rama V), the first public school for common people was established and the first Education Project was declared by a royal decree in 1871. Education was made available to all children. Under King Vajiravudh (Rama VI), the first institution of higher learning, Chulalongkorn University, was established in 1916. In 1921, the first compulsory Primary Education Act was enacted requiring all children younger than fifteen years old to attend school.

Presently, the four levels of education in Thailand are pre-school, elementary, secondary, and higher education. For Elementary and Secondary education the 6:3:3 system is used.

Pre-school education is provided for pre-school children between three and five years old to prepare for primary education in physical, social, emotional, and intellectual development. Pre-school education is non-compulsory, but private sectors and local communities are encouraged to establish kindergartens and early childhood centers. There were approximately 1,240,577 children or 30% of the 3-5 year olds, attending more than 16,928 kindergarten and centers according to the National Education Commission survey in 1987.

Elementary education is compulsory and free for all. A child must stay in school from the age of 6-11 (from Grades 1-6). Four clusters of subjects are emphasised Skills (Thai language and mathematics), Life Experiences (Social Studies, Sciences, and Health Science), Work Education (Art, Handicrafts, Home Economics), and Character Building (Morality, Civic Responsibilities, Art, Music, Physical Education). English language is

taught from Grade 5. Presently there are about 7.2 million pupils or 97% attending more than 35,000 schools with a dropout rate of 3%. About 3% of children aged six to eleven living in remote areas, handicapped, or socially and economically deprived, are unable to attend elementary schools.

Secondary education aims at providing necessary academic and vocational knowledge and experience to boys and girls after they have completed this elementary education. A student must study for six years from Matayom 1 - 3 in Lower Secondary schools and Matayom 4 - 6 in Upper Secondary schools. Students may select the program to meet their interest, whether it is academic (arts or sciences), or vocational. In 1987, about 40% of elementary school graduates continued to the Lower Secondary schools totaling 1,277,619. Among these pupils, about 905,211 or 70% proceeded to the Upper Secondary school academic and vocational programmes.

Higher education aims at the further development of human intellectual abilities; the advancement of knowledge and technology; and the provision of academic and professional manpower needed for national development. Higher education is offered in both public and private colleges and universities. A student may study for a bachelor's degree (four years), a Master's degree (two years), and a doctorate degree (three to five years). In some technical and business colleges, the student may work for a higher certificate or an associate degree. Presently, there are sixteen national universities and institutes and a number of private colleges and universities under the coordination of the Ministry of University Affairs. In addition, there are thirty six teacher training colleges offering bachelor's degrees in education, sciences, humanities, and management sciences. There are more than one hundred technical and vocational colleges under the Ministry of Education. There are also colleges offering specialized training in agriculture, nursing, public administration, and military under the Ministries of Agriculture, Public Health, Interior, and Defense respectively. The enrolment in traditional, closed-admission institutions is based on performance in a competitive national entrance examination. Each year about 200,000 students take the entrance examination, and approximately 35,000 pass. Those who do not pass may gain admission to one of the two open universities, namely Ramkhamhaeng University and Sukhothai Thammathirat Open University. Ramkhamhaeng University is a triple mode open-admission university, whereas Sukhothai Thammathirat Open University is a single mode distance education institution.

Thailand has a good network of communication and transport systems. There are countrywide systems of roads (43,840 kms), rail (3,800 kms), and air, making it relatively quick and easy to travel by bus, train, and air services. In the Greater Bangkok area, a rapid transit system consisting of electric trains and monorails is being developed. There are more than 270 radio stations, and five colour television networks on Pal-B broadcasting system (Channels 3, 5, 7, 9, and 11) covering 95% of populated areas. While TV Channels 3,5,7 and 9 are operated on a commercial basis, Channel 11 was established for education, public relations, and national security purposes and is operated by the Department of Public Relations. Due to Channel 11 's limited times for network broadcasting, however, because all PRD stations in the provincial areas still operate commercially, it is unable to give adequate air time for educational programs. The National Education Commission (NEC) is therefore planning to establish a new educational television network in the near future. In 1987, there were approximately 18 million radio and 4 million television sets in the country. In addition, there are more than half a million telephones with a target of 3,000,000 or more

by 1995. The postal, telegraph, and telecommunication services via satellites (Intelsat and Indonesia's Palapa) are insufficient to meet the demands of domestic users. Therefore the government has permitted a private firm to launch a local satellite, the ThaiSat, to serve the needs of public and private sectors. On-line and computerized telecommunications are available for business industries and education, both in Bangkok and provincial areas.

HISTORY AND BACKGROUND

Distance education in Thailand is provided by agencies in the Ministry of Education for elementary and secondary education, and the Ministry of University Affairs for higher education. The historical background, administrative and academic structure, instructional media system, delivery, and evaluation systems vary according to the institution.

Informal distance education was considered to have existed nearly a thousand years at the time of the Sukhothai Period. King Ramhamhaeng the Great reigned his country with an open policy allowing his subjects to trade and learn as they wish. Learning took place mostly at home without a formal curriculum. In the Bangkok Period, when the Wat Po, a Buddhist temple was established, learning centers were available within the compounds to offer knowledge and skills on medicine, and Yoga techniques. The Wat Po is considered the first open university in Thailand.

In the present concept, distance education in Thailand was first developed in 1933 with the establishment of the University of Moral and Political Sciences. The full use of distance education techniques was developed at the establishment of Sukhothai Thammathirat Open University in 1978. At the elementary and secondary levels, distance education programmes were started by the Department of Non-Formal Education (DNFE) a few years later.

The University of Moral and Political Sciences offered a general degree, Bachelor of Thammasart (BTh) via what is often called the Academic Market approach with an open admission policy to work towards degrees in law and business administration. Students bought texts and handouts to study by themselves or attend classes on campus. No distance educational media was specially designed for home-based students. The university was converted to a conventional university and renamed Thammasart University in 1957, at which time entrance examinations were required for admission.

Years later, Ramkamhaeng University with an Academic Market policy was established as a public university by a Royal Charter on February 26, 1971. Originally modelled after the University of Moral and Political Sciences, it was later modified to more systematically serve the needs of students, employing certain distance learning approaches such as producing better texts, and using radio/television programmes for direct teaching. RU is an open-admission institution which provides a triple mode instructional system to class attending students, home-based distance learning students, and mixed type students both attending classes and studying by themselves. Their study mode was based on their preference to be on-campus, off-campus students or a mix of both.

Sukhothai Thammathirat Open University was established as a public university on September 5, 1978. It is operated on the single mode policy and uses the full concept of distance education. The whole range of specially designed printed materials, radio as well as television programmes, tutorials, and computerised instruction are used.

Distance Education in Asia and the Pacific

The Department of Non-Formal Education, Ministry of Education, employs distance education via the so-called radio correspondence programmes for home-based students who had not completed elementary or secondary schools. It is aimed at providing the chance to study for both elementary and secondary education certificates.

Generally there are three factors leading to the establishment of distance education institutions. These are to meet the needs of those who had not earned certificates or degrees via conventional means, the need to upgrade the quality of life, and the need for improvement in the work of the people.

The Use of Instructional Media in Distance Education

Historical development of the use of instructional media for distance education varies according to institution.

Sukhothai Thammathirat Open University (STOU) developed a multi-media package production system to be carried out by course teams. The production of multi-media packages is undertaken by a committee called "the Course-Team" which proceeds along appropriate steps set forth in the Multi-Media Package Production system. Printed media component is produced by the Office of the University Press. Audio-visual media, radio and television programmes, and tutorial media are produced by the Office of Educational Technology. The steps include the need to Analyze/Review the Content and Units; Identify Teaching Units; Plan the Lesson; Prepare Learning Activities; Produce Multi-Media Packages; Construct Test Items for Evaluation; Combine Multi-Media into Distance Learning Packages; Conduct Developmental Testing of Multi-Media Packages; and Implement Distance Learning Multi-Media Packages. The course team consists of nine to eleven members, including five to seven content specialists, one educational technologist, one evaluation specialist, one editor and a secretary. One academic is appointed as Chairman, and one as editor. The course team is appointed by the Academic Senate and charged with the responsibilities of the planning, the preparation, the production, and the evaluation of the media needed for the course. The course team also selects and submits the names of the writers of the fifteen units for the approval of the Academic Senate.

Ramkamhaeng University (RU) makes use of class-room instruction as the main delivery approach. Lectures are conducted in various lecture halls, each of which can accommodate from 3,000 to 5,000 students. Closed-circuit television is used to link two or more lecture halls for some courses. Texts are available for all the courses offered, although most of them are not written for self-instructional purposes. Radio and television programmes are broadcast for certain foundation courses for home based students. Radio programmes are broadcast on Radio Thailand Programme 3, and television programmes are broadcast on Channel 11 of the Department of Public Relation and on the Thai Army's TV Channel 7. Since lectures are available for all courses, tutorials are provided on a limited scale. Students, therefore, have to help themselves by setting up the so-called peer tutorials on campus. Those students who have a good understanding of the course act as tutors and volunteer to teach other students. At the end of the semester students have to come to take their final examinations at the university's two campuses. Of more than 302,000 students, there are approximately 98,663 regularly class-attending students (32.67%), 127,383 students (42.12%) occasionally attend classes, and more than 75,954 students (25.15%) study by themselves from texts, radio, and television programmes.

Financial Supports of Distance Education

Financial support for distance education comes mainly from student fees, from the government, from external assistance, and investments. The sources and forms of support vary from one institution to another.

STOU receives only 15-20% of its budget from the government for the salaries of staff and construction of basic infrastructure such as buildings, workshops, and laboratories. Other expenditures, mostly operating costs and developing of advanced infrastructure, come from tuition fees and external assistance. External assistance is granted from various international organisations such as UNESCO, British Council, Japan International Cooperation Agency (JICA), Republic of Germany, and local business firms. For example, JICA provided a grant aid totalling USE 12 million for the construction of the Educational Broadcasting Production Center for producing radio and TV programmes, and the Government of the Republic of Germany provided nearly the same amount for the establishment of the Printing Technology Training Institute. In addition, STOU invests funds for various purpose such as Research Fund, Distance Education Media Development Fund, totalling about Baht 300,000 million. This yields more than 20 million Baht in annual interest. These form the annual budget of about 350 million Baht per year. The sources and forms of financial assistance have not changed for STOU.

The sources and forms of financial support for RU are similar to those of STOU. RU gets about 60% from the government for similar types of expenditure, as it has more staff than STOU. (While STOU has less than 300 full time academics, RU has more than 2,000). The sources and forms have not changed. Since 1991, there has been a movement to free universities from a government framework so that each university can manage itself independently, but it has not yet been implemented.

For the DNFE, most financial support comes from the government. Support from students fees and external assistance are limited.

Although, more distance education institutions may not be needed in the near future, distance education in Thailand is expanding in terms of offering new programmes, reaching more target groups, and improving the distance education techniques used in conventional institutions. Because of the demands for professional enrichment of people in various fields, existing distance education institutions plan to establish new schools and programmes of study. For example, STOU intends to establish the School of Science and Technology in 1995 and offer three Master of Education programmes in Educational Administration, Curriculum and Instruction, and Educational Technology and Communications. Master's degree programmes in other areas will also be offered within the next three years. The growth of business in Thailand offers work to secondary school graduates. More young people will want to work and study at the same time. Existing distance education institutions like STOU will have to modify its distance education system to make it suitable for younger people to study by themselves. Conventional universities, consequently, may find it more difficult in the future to confine their students to class-room instruction. Distance teaching techniques may be developed as integral parts of conventional teaching to reduce talk-and-chalk types of instruction and allow more time for seminar types of instruction.

THE LEGAL STATUS OF DISTANCE EDUCATION

All distance education institutions are established by their own charter, thus they have the same legal status and authority as other educational institutions and certificates and degrees are of the same standard. RU was established by the Ramkhamhaeng University of 1971 and its amendment in 1978. STOU was enacted by the Sukhothai Thammathirat Open University Royal Charter of 1978.

OVERVIEW OF CURRENT SITUATION

Aims and objectives of distance education

The aims and objectives of distance education in Thailand are generally based on the philosophy of continuing life long education by providing and expanding opportunities for people who, for whatever reasons, had not earned certificates or degrees from other universities, and at the same time upgrading the quality of life and work. Various distance education institutions have their aims and objectives stated differently. For example, STOU states its aims and objectives as follows:

- 1) To open and expands the opportunities for higher education to working adults and secondary school graduates who are, for whatever reasons, unable to attend conventional colleges and universities;
- 2) To provide the most suitable self-instructional system based on existing infrastructure both on the part of the university and the students;
- 3) To utilize existing human resources and infra-structure outside the university in the production and dissemination of knowledge and experience to the students;
- 4) To provide continuing education and outreach programmes to all the public to upgrade their work and the quality of their life;
- 5) To make full use of advanced telecommunication and computer technologies for production and delivery systems.

STOU has to achieve four objectives observed by all public and private universities under the Ministry of University Affairs. The four objectives are:

- 1) To provide and promote academic and professional education at the university level in order to help the people upgrade their educational standard and serve the needs of the society;
- 2) To promote research and studies for generating new knowledge and applying it to national development;
- 3) To provide public service by disseminating knowledge to the people to help them upgrade their personal development and their professional competencies;
- 4) To preserve and promote arts, traditions, and cultural heritages of the country.

Control, Organisational and Management Structure

The control, organizational and management structure of distance education institutions of higher learning under the Ministry of University Affairs are generally alike, but the DNFE in the Ministry of Education is different.

Both STOU and RU are governed by University Councils. The management is under the Presidents and his staff. The following is the case of STOU illustrating the control, organisational, and management structure.

Like other universities in Thailand, STOU is governed by the University Council, the supreme governing board which selects and recommends the Royal appointment of the President and appoints high level administrators. The University Council is a lay board appointed by a Royal decree. It consists of a Chairman, members by position, and representatives of experts, and a Secretary. Members by position are the Permanent Secretary of the Ministry of University Affairs or representative, the Director-General of the Department of Public Relations, the Director-General of the Department of Technical and Economic Cooperation, the Director-General of the Department of Post and Telegraphs, the Governor of the Communication Authority of Thailand, the Director of Mass Communication Organization, the President of STOU, and the representative of the Academic Senate. The Secretary is appointed from one of STOU's vice-presidents. Representatives of experts (nine members) are selected from professionally successful individuals in the areas of science and technology, social sciences, and humanities. The members of the University Council serve a two-year term.

The President and his administrative staff are responsible for the overall university administration together with deans, directors of respective schools, institutes and offices. The university is divided into sections under the charge of vice-presidents. The seven sections are Administration, Academic Affairs, Planning, Development, Operation, Educational Service, and Special Affairs. There are presently ten schools under the charges of chairpersons or Deans. The Office of the President in charge of general administration consists of Central Division, Planning Division, Finance Division, Personnel Division, Procurement and Property Division, Internal Audit Unit, and Seminar Centers.

For services, there are six offices (administrative organisations equivalent to schools or institutes), headed by Directors, namely Office of Academic Affairs, Office of Educational Technology, Office of Educational Services, Office of Documentation and Information Office of University Press, Office of Continuing Education, Office of Computers, and Office of Registration, Records and Evaluation.

Unlike Ramkamhaeng and other universities, STOU's schools are not divided into departments. STOU was established to fully utilize existing human resources and to prevent departmentalism. However, offices and institutes are divided into centers and divisions.

Geographical Coverage of the Provision of Distance Education

Through a good network of communication, the coverage of distance education is nationwide, reaching more than 90% of the populated areas via radio and television broadcast.

Instructional and Delivery Systems

Among the three distance education institutions, STOU has the most systematic plan for its instructional and delivery systems.

Ramkamhaeng University, since it makes use of class-room instruction as the main delivery means, produces texts in traditional format. These texts are written individually by its academic staff. As a matter of policy for class-room extension RU makes use of direct teaching radio and television programmes for students who cannot attend lecture sessions on the two campuses at Hua Mark Main Campus and Pachim Sawat Swannapasri Campus (Toong Sethi), each about 20 kms from the heart of Bangkok.

The DNFE's distance education unit produces radio and television programmes through the DNFE's Center for Educational Technology (CET) and broadcasts via Radio Thailand Programme II for radio and Channel 11 for television programmes. Texts are available in some courses. Local studies are also set up for interest groups at provincial secondary schools for the radio-correspondence programmes.

STOU is operated under the single mode system of instruction, and students mainly study by themselves. As stated in Article 6 of STOU Royal Charter (1978), educational experience provided by the university

. . . shall be disseminated through printed media via correspondence, radio and television broadcasts, and other techniques which are appropriate in helping the student learn effectively by themselves without having to attend regular classrooms....

Thus, STOU is prohibited by its own charter from setting up regular classes, except for special tutorials and professional enrichment activities. In order to provide education without regular classrooms, STOU developed its own distance education system called the STOU Plan using a systems approach to ensure that each programme of study is relevant to the needs of the society and the instructional system is helpful to home-based students. According to the STOU Plan, the instructional system model for media production and delivery of distance education consists of five major steps.

Identify Problems and Needs

Before offering a curriculum or a study programme, each school must conduct a survey to identify problems and assess existing needs of the society so that the offered programme will really meet public needs and contain the type of knowledge and the skills that are useful for personal and national development.

Develop the Curriculum

After the area of study has been identified based on the needs assessment conducted in Step 1, a curriculum is developed in the form of an integrated curriculum. This covers both an inter- and multi-disciplinary approach to support the nature of STOU programmes which cover a wide range of subject matter within each area of concentration. Consequently each curriculum consists of philosophy, rationale and principles, aims, content structure, course list, course descriptions, recommended outline for each course's fifteen units, and unit objectives stated in behavioral terms.

Produce Multi-Media Distance learning Packages

A clearly stated systems model or flow-chart is needed for outlining logical production steps for each type of media. The major steps include the planning, preparation, production, developmental testing, and evaluation.

Identify and Implement Delivery System

The delivery system is identified based upon the existing socio-economic and cultural infrastructure of the country. In Thailand, print technology is readily available and the print media are considered the most economical media in education. Consequently print is used as a core medium in STOU's delivery system. In addition, STOU makes use of the broadcasting infrastructure that exists including Radio Thailand's 40 stations all over the country, as well as commercially operated TV Channel 7 and Channel 9. STOU has helped create a new infrastructure that includes Radio Thailand Educational Network, and the newly established Television Channel 11, which STOU helped develop and justify. STOU is also very much involved in helping to plan the new non-commercial educational television network whose approval is now pending the Cabinet's decision. STOU also makes full use of existing educational institutions and their staffs for tutorials, professional experience, and information services.

After identifying the modes of delivery, the delivery system is implemented using print media, AV media, radio programmes, TV programmes, community resources, and study centers.

Identify Modes of Evaluation and Follow-up

Two modes of evaluation are identified in STOU's distance education system. Evaluation of students' learning achievement and evaluation of the distance education system itself. STOU developed the evaluation system to be the responsibility of designated divisions.

The delivery system of distance education at STOU is designed to disseminate knowledge and experience to its home-based students through print and audio-visual media via the mail, radio programmes via Radio Thailand Education Network (49.5 hours per week), television programmes via Channels 9 and 11, and tutorial sessions provided at local study centers located at provincial secondary schools, some teachers' colleges, and provincial universities.

Research Activities

Research activities in distance education institutions in Thailand are of academic and institutional research. Research activities are usually identified in the research plan of each institution. Academic research activities are conducted by academic staff to discover and expand the frontiers of knowledge in their fields of specialisation. Research activities concentrate on the kinds of knowledge that may be delivered via distance education, content and media relationships, production and use of the various media, developmental testing of media packages, effectiveness and types of delivery systems, and evaluation of students' achievement. Institutional research activities are aimed at improving the distance education system.

Enrollment and Graduates in Distance Education

Enrollment in distance education in Thailand is generally high. For STOU, there are approximately 450,000 students. The average new annual intake is about 80,000 students, most of whom are working adults. Since 1987, STOU has produced more than 111,000 graduates in the ten schools. RU has more than 302,000 students. Its annual intake, most of whom are high school graduates, is about the same as STOU. Since 1973, the RU has produced more than 218,000 graduates in the seven schools.

Distance Education in Asia and the Pacific

International Affiliation and Cooperation

Distance education institutions in Thailand usually have some sort of affiliation and cooperation with some international organisations.

STOU is a member of the Asian Association of Open Universities (AAOU) and International Council for Distance Education (ICDE). It receives cooperation from UNESCO, the British Council, the Japan International Cooperation Agency, and the Government of the Republic of Germany. RU receives cooperation from the Open Learning Authority in Canada, and a few universities in the United States.

Problems and Issues

Problems and issues in distance education in Thailand may be described in terms of administration, personnel, communication and educational technologies infra-structure, delivery, and evaluation.

Distance education institutions, unlike conventional institutions, still have to prove themselves to win the trust of the public. Administrators must understand the philosophy of distance education, and be innovative to bring progress to the institution. Many administrators have had experience in traditional settings and so have difficulties in managing institutions in more innovative ways.

Personnel in distance education institutions usually have to work very hard to serve a large number of students. It is sometimes very difficult to recruit this type of personnel with competence, devotion, and a good understanding of the distance education system. Some academic and non-academic staff transfer to other universities or move to the private sector after a while because of the over-load in distance education institutions.

The success of distance education depends greatly on educational communication and technologies. The institutions have to invest in a communication and educational technological infra-structure which is very costly. Consequently, some type of educational and communication technologies needed for the production of distance education media packages are not yet established.

Delivery of some components of distance education is possible through the network of regional Centers, local study centers, and area resource ventures. Presently, distance education institutions such as STOU make agreements with the Department of Secondary Education, Ministry of Education for the use of provincial secondary schools as their study centers. Provincial public libraries, under the agreement with the DNFE, are also utilized for deposits of books, texts, and other types of printed materials for students. The number of local study centers however is neither sufficient nor convenient for students in remote areas. Tutorial sessions are not provided in every province because of the limited number of students registering for the course.

Sufficient Area Resource Centers (ARC), aimed at providing the various forms of information and documentation, and other types of activities have not been established to serve the need of all students. Originally, ten to twelve ARC's were supposed to be established. To date, only a few have been completed.

Evaluation of students' achievement should be based on both the evaluation of process

(assignments, activities, etc.) and the evaluation of product (final examinations). Presently, the evaluation of most courses is based totally on final examinations. The assignments performed by students are not counted as part of the final evaluation, thus making the students feel that the activities are not important. Some of them therefore do not carry out the activities at all.

CONCLUSION

Distance education in Thailand has grown rapidly during the past two decades. It has gained much public support and recognition, thus becoming an effective tool for human resource development. As Thailand develops its communication infrastructure, better delivery system can be developed for home-based students.

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Turkey

Nur SoZEN

THE NATIONAL CONTEXT FOR DISTANCE EDUCATION

Turkey links southern Europe and Asia, sharing boundaries with Syria, USSR, Iran, Iraq, Bulgaria, and Greece. It is a mountainous country with a long coastline in Anatolia (Asia) and Thrace Europe. The area of Turkey in square kilometers is 81,457.8, with 790,200 in Asia and 24,378 in Europe. Turkey consists of seventy-three provinces.

The increase in the number of candidates applying for admission to Turkish higher education institutions towards the end of the 1950's led the governing bodies to think about providing more opportunities to avoid overcrowding and to support working high school graduates. Accordingly some effort was made to create facilities for distance education. Perhaps the most important impetus for this idea was related to the economy. Until 1981 higher education was free and it became difficult to provide efficient educational facilities for the continuously rising number of students without lowering the standards. On the other hand, Turkey is a country with a young population. According to the 1990 census, 51 % of the population is younger than twenty-four years of age. Undoubtedly, this young population wants the opportunity for better education, but on the other hand, it must not be forgotten that 41 % of Turkey's population is still considered rural. Higher education requires personal expenditure to cover education fees, education material, boarding and accommodation. To afford these amounts is not very easy for an average family. Therefore, distance education was considered an efficient solution. Moreover, the present infrastructure was able to support such services in Turkey. The number of high school graduates who could not pass the University Admission Examination or who could not get sufficient marks to be placed in an education programme of their preference started reaching significant levels. During the 1974-1975 academic Year Correspondence Instruction was introduced for those who had not been able to be admitted to a university. Such students studied by means of printed educational material supplemented by attendance in summer courses.

With the establishment of the Expanded Higher Education Institution (YAYKUR) in 1975 and the establishment of a Distance Education Faculty affiliated to Anadolu University in 1982, distance education gained in importance and was seen as an efficient means of higher education. Table 1 and 2 clearly show striking demographic changes in Turkey. Table 2 especially indicates the significant place of the young population in the total. Distance education seemed to provide higher education opportunities, along with technical training courses that lead to a certificate, for a considerable portion of this young population.

TABLE 1: Population Increase BY Years

1927	13 648 000	1965	31 391 000
1935	16 158 000	1970	35 605 000
1940	17 821 000	1975	40 348 000
1945	18 790 000	1980	44 737 000
1950	20 947 000	1985	50 664 000
1955	24 755 000	1990	56 969 000
1960	27 755 000		

Source: State Institute Of Statistics Statistical Yearbook, 1990.

TABLE 2: Population BY Age Groups And Sex (X1000),1985
(Details Of 1990 Census Not Available Yet)

Age Group	Total	Male	Female
	50 664	25 672	24 992
0-4	6078	3 113	2 965
5- 9	6 739	3 457	3 282
10-14	6 193	3 210	2 983
15-19	5 407	2 744	2 663
20-24	4 784	2 334	2 350
25-29	4 041	2 056	1 985
30-34	3 374	1 724	1 650
35-39	2 787	1 414	1 373
40-44	2 208	1 098	1 110
45-49	2 009	992	1 017
50-54	2 043	1 040	1 003
55-59	1 649	824	825
60-64	1 130	556	574
65	2 126	995	1 171
Unknown	96	55	41

Source: State Institute Of Statistics Statistical Yearbook, 1985.

Although the language of instruction is Turkish, foreign languages, mainly English, but also German and French are taught. Course material for these languages are provided by means of books and TV programmes jointly prepared by language training institutions and Distance Education Faculty staff members, some of whom are foreign lecturers.

The Faculty of Distance Education (it is also called the Open Education Faculty) is one of the faculties of Anadolu University located in the city of Eskifehir. It is the only higher education institution involved in distance education. It has two distance education programmes, namely, Business Administration and Economics. Students are admitted according to the results of the first stage of the two-stage examination organized by ÖSYM (Student Selection and Placement Center). The total quota for the academic year 1989-1990

for these two programmes was 65,000. This is the highest quota for higher education programmes in Turkey.

The duration of the distance education programmes is four years and their instructional level is that of the License. Students of distance education take one mid-term, a final and a make-up examination. The Higher Education Council has given the responsibility of conducting the examinations to the Student Selection and Placement Center. Examinations are given in all the provincial centers where Distance Education Faculty offices function. Recently, Turkish students living in some European countries were also admitted in the Distance Education Faculty and their examinations were organized accordingly.

The duration of the Business Administration and Economics programmes of the Distance Education Faculty of Anadolu University is four years. During the first two years the students of both programmes take the same basic common courses. From the third year on the students take courses specifically designed and prepared for the programme. The first-year courses given during the 1990-1991 academic year were Introduction to Business Management; Introduction to Economics; General Accounting; Introduction to Behavioral Sciences; Basic Law; General Mathematics; Foreign Language (English, French, German); Ataturk's Principles and History of Turkish Revolution; and Turkish Language I. The second-year courses offered were Business Management; Economic Analysis; Accounting Applications; Public Finance, Commercial Law; Statistics; Foreign Language; Ataturk's Principles and History of Turkish Revolution; and Turkish Language II. Third-year courses for the Business Administration Programme included Business Finance; Marketing; Cost Accounting; Turkish Taxation Regulations; Administrative Structure of Turkey; Law of Business and Social Security; Foreign Language; Ataturk's Principles and History of Turkish Revolution; and Turkish Language III. Third-year courses for the Economics Programme included Currency and Banking; International Economics; Turkish Taxation Regulation; State Budget; Administrative Structure of Turkey; Law of Business and Social Security; Foreign Language; Ataturk's Principles and History of Turkish Revolution; and Turkish Language III. Fourth-year courses in the Business Administration Programme included Behaviour of Organizations; Advertising and Sales Management; Accounting Control and Financial Analysis; Turkish Economy; Investment and Project Evaluation; Computers and Basic Programming; Foreign Language; Ataturk's Principles and History of Turkish Revolution; and Turkish Language IV. Fourth-year courses in the Economics Programme included Economic Development; Finance Policy; Taxation Applications; Turkish Economy; Investment and Project Evaluation; Computers and Basic Programming; Foreign Language; Ataturk's Principles and History of Turkish Revolution; and Turkish Language IV.

Examinations are conducted by means of the central organisation on a previously announced date and place. These details are sent to all students, together with examination documents. Additional information can easily be obtained upon request from the Distance Education Faculty offices. These offices also provide counseling services. All examinations are prepared in the form of multiple choice tests which are later evaluated, by computer, at the Student Selection and Placement Center. The students must receive adequate marks from every course. The mid-term exam is weighted 30% and the final exam weighted 70% to determine the final grade. A student must therefore receive at least 50% on each exam to be successful. All the related information and the results of the examinations are sent to the students by mail. Those students who fail two courses can proceed to the next courses the following year, but the ones who fail more than two must repeat them and cannot advance.

The students of the Distance Education Faculty keep their student status for seven years.

All the services provided to the students are organized by the central office and local offices in connection with the central office. Among the services provided, the following are worth mentioning. The students who have successfully completed the first two years are awarded a Pre-License diploma, which allows working students the chance for employment promotion. Students who have successfully completed the whole four years and passed all the courses are awarded a License Diploma. The central office also prepares transcripts for each student. Transcripts can also be prepared in English.

To provide counseling services efficiently, academic counseling centers have been established at various locations. To perform these services, the Distance Education Faculty cooperates with other universities. Students can receive tutoring, course information, and advice on study skills from the academic staff.

The provinces where academic counseling services are provided are as follows: Eskifehir, Afyon, Kutahya, Antalya, Ankara, Erzurum, Sivas, Adana, Diyarbakir, yzmir, Aydin, Kayseri, Elazi°, ystanbul, Bursa, Zonguldak, Trabzon, Samsun, Konya, Balikesir, and Lefkofa.

Additionally, the Distance Education Faculty has twenty-two student offices in twenty provinces. The principal education material used by the Distance Education Faculty are books which are published and distributed. Television is another important tool for distance education. Lectures are prepared at the TV studios of the Distance Education Faculty and broadcast by the TRT (Turkish Radio and Television).

The present communication policy includes established network broadcasting, postal services, the telephone system and other means of mass media. The printed material can also be obtained through Distance Education Faculty offices in addition to the postal delivery services.

Very close cooperation has been established between the Distance Education Faculty and the General Directorate of TRT for the broadcasting of courses via TV. The programme of the courses to be broadcast on TV is announced both on TV and radio, and in the newspapers. These announcements are made in detail to cover the year. All types of courses are broadcast on TV, but radio programmes only cover foreign language courses.

HISTORY AND BACKGROUND

In 1981, during the reorganization efforts of the higher education system as a whole, distance education was defined. According to Article 3 of the Higher Education Law, the forms of higher education were described as "formal, open, external and expanded". Distance education is open in the sense that instruction is conducted by means of radio, television and printed education material. Within this legal framework, the Faculty of Distance Education (AOF) was established in 1982 as a component of Anadolu University.

The Higher Education Law, which came into effect on November 6, 1981, established and organized continuous distance education. But, because other universities lacked the necessary mass communication technologies and facilities, they were unable to establish distance education, preferring to stick with traditional teaching methods. Accordingly the Distance Education Faculty at Anadolu University has sole responsibility for organizing distance education throughout the country.

Three major factors influence face to face education throughout the history of education in Turkey. One of them is the enormous cost of bringing people together under optimum conditions and facilities for education. The second is the ever increasing number of the people who want higher education. The third factor that developed over time created a solution to the problems created by the first two factors. This is the technological progress in mass media in terms of improving communication per se and reaching even the most remote areas. With these technologies and techniques, it has become possible to explain and teach the most sophisticated subjects to unlimited numbers of people in various places. The need for face to face instruction has gradually lost its previous importance. Using mass media in a reasonable mixture brought distance education to large numbers of people.

With its education technology and facilities, distance education brings school and university into the living rooms of every citizen in the country. This means that it is a modern education and training model that reduces the load both on the individual and on the universities. This can also be interpreted as more benefit for less cost.

In Turkey, although distance education can be used for public and adult education and training, it was initially started at the higher education level. There are virtually no differences between the programmes included in distance education and non-distance education. For example, the contents of a mathematics course taught during the first year of Faculty of Economics and Administrative Sciences of Anadolu University is the same as that of the first year of the Economics Programme of Distance Education Faculty. The only difference is that the Distance Education Faculty uses different methods and techniques to reach the students. Following the same programme, neither are there differences between the diplomas obtained. This means that the legal rights of the graduates are also the same. Turkish Higher Education Legislation considers the Distance Education Faculty to be equivalent to non-distance schools. Although efforts of organising an efficient system of distance education seems to date back to the late- 1950's, the specific objectives were not clarified until 1974. Indeed it was not until the Higher Education Law and related regulations were established in 1981 that distance education became well organized across the country. Undoubtedly the success of this organisation is closely related to the progress regarding TV broadcasting. Due to the joint efforts of PTT (Post, Telegraph, Telephone) and TRT (Turkish Radio and Television) to spread TV services throughout the country, distance education accelerated in 1984 with the new nationwide network of TV stations. Parallel to these efforts, the number of TV channels increased. At present, Channel 4 broadcasts the Distance Education Faculty courses. New developments can be expected in the future as technology facilitates improved means of communication, and distance education gains an international character.

Undoubtedly books are still the most important tools in education. Anadolu University Distance Education Faculty prepares all its textbooks in accordance with its programmes and, with PTT, it organizes the mailing of them to students. All students therefore receive their course textbooks in a convenient and orderly manner.

On the other hand, the Distance Education Faculty has well-equipped TV studios where courses given by various lecturers are recorded. These recordings are broadcast by TRT on Channel 4. Students can easily combine the information given in the books with what is explained by the instructor on the TV screen.

TABLE 3: 1990-1991 Academic Year Schedule

a) <u>Education</u>		
TV broadcasting (courses)	November 1990 - May 1991	
Radio Broadcasting (courses)	November 1990 - May 1991	
Academic counseling services	December 1990 - May 1991	
b) <u>Examination</u>		
Mid-term	March	23-24 1991
Final	June	1- 2 1991
Make-up	September	7- 8 1991

Table 4 clearly indicates the growing demand and interest towards distance education. Careful examination of the table shows a critical change in 1983 when expanded education was replaced by distance education. In spite of 35,000 available quota, only 14,982 students entered the distance education programmes, leaving almost half of the available slots free. But, increasing numbers of applications since 1984 have exceeded the quotas. One reason for this increasing demand is the success of the Pre-License Diploma, or Certificate, offered by the Distance Education Faculty for the students who complete the first two years of the four year programme.

TABLE 4: Summary of Distance Education in Turkey

	<u>Quota</u>		<u>Placement</u>		Disabled	Total
	General	Top Students	General	Top Students		
Expanded 1981 education	810	47	967	20	-	987
Expanded 1982 education	1304	142	1445	1	-	1446
Distance 1983 education	35000	-	14981	-	1	14982
Distance 1984 education	40000	-	47977	-	22	47999
Distance 1985 education	50000	-	59979	-	21	60000
Distance 1986 education	50600	-	68904	-	7	68911
Distance 1987 education	55000	-	73817	-	11	73828
Distance 1988 education	60000	-	81333	-	23	81356
Distance 1989 education	65000	-	85019	-	37	85056
Distance 1990 education	65000	-	83362	-	26	83388

Source: State Institute of Statistics years 1981-1990

TABLE 5: Number Of Distance Education Faculty Offices, Students And Graduates By Years

Academic Year	No of Offices	No of Students	No of Graduates
1982-1983	9	29 479	-
1983-1984	17	40 617	-
1984-1985	19	65 656	-
1985-1986	20	97 313	4658
1986-1987	20	106 860	6172
1987-1988	21	133 160	5662
1988-1989	22	174 738	5438
1989-1990	23	228 247	8406
1990-1991	23	206 762	X

X1990-1991 figures are not available yet.

THE LEGAL STATUS OF DISTANCE EDUCATION

There were various legal arrangements and regulations regarding Higher Education prior to 1981, but all were replaced by the implementation of No. 2547 Law. Regulations relating to distance education in No. 2547 Law of Higher Education (1981) Article 3/4 describe the various types of education currently existing in Turkey.

- Formal (Conventional) Education is that where students have to participate in conducted courses in classrooms and also participate in laboratory works and practises.
- Distance education (or open education) is the type of education carried by means of radio and TV broadcasting and by other means of education material.
- External education is that where students do not have to participate in conducted courses (taught courses), but have to take mid-term and final exams. These students might be asked to follow some taught courses that are to be organized from time to time.
- Expanded education aims to provide required information, knowledge and skills to the public in various fields.

Article 5 describes the main principles of Higher Education and in Article 5/4 distance education is considered the same as formal and other means of higher education. Article 12 of the same Law states the responsibilities and duties of Higher Education Institutions, and Article 12/d-f states that all types of higher education institutions including distance education are responsible for training the public, especially for the modernization of industry and agriculture.

No. 2809 Law of March 28, 1983, No. 41 Higher Education Institutions Legislation describes all the universities in Turkey detailing the faculties, vocational-technical colleges and related institutions of each. Article 21 of this Law explains all the aspects of Anadolu University and details how the individual units of education were put together in addition to new ones to form Anadolu University, and how distance education was also affiliated to this university.

Article 1. Distance Education, to take place in the universities in relation with No 2547 Law and Article 12/d-f and 43/c, is to be carried according to this regulation.

Article 2. Distance Education (higher education) is carried in two different ways: A) As the central distance education in Anadolu University B) As Distance Education in other universities

Article 3. Central Distance Education is carried by Anadolu University Distance Education Faculty according to No 41 Higher Education Legislation to serve the whole country. The fields to be covered by this type of higher education are decided by the Higher Education Council upon the offer or request of the university.

Article 4. To provide distance education in any of the programmes of universities is to be decided by the Higher Education Council upon the offer of universities. The quotas, student capacities, principles, system and equipment-material of education and training are to be decided by the authorized organs of university.

Article 5. The contents of the courses of distance education programmes of a certain university are the same as the formal programmes of this university.

Article 6. Admission to distance education programmes is possible according to undergraduate education examination regulation of universities. And, same rules apply both for distance and formal education.

Article 7. Students of distance education are required to fulfill all the conditions of articles of the Undergraduate Education and Examination Regulation except participating in the conducted courses.

Article 8. Distance education is carried by means of: - published education material ; video tapes, films, cassettes, books, printed lectures etc. - Radio, TV broadcastings - Group discussions with the presence of supervisors - Academic counseling

Article 9. In order to increase the efficiency of distance education various tests and evaluation systems can be applied on the students.

Article 10. Examinations of distance education other than the central, are organised together with the formal education faculties of the related university.

Article 11. Transfers between the central distance education and formal education of the same programme are to be decided by the authorised organs of the Higher Education Council.

Article 12. Education fees and the charges made for the books, cassettes, tapes, slides, letters, tests, experiment equipment etc. are considered as income by the revolving investment for Distance Education Faculty of Anadolu University and for related units in other universities.

Article 13. There is no difference between the rights of the students and graduates of distance and formal education. And the graduates of the both entirely have the same legal rights.

Article 14. The students of distance education cannot benefit from physical facilities of formal education other than libraries and planned practical studies.

Article 15. At every unit where distance education is provided a student office is established. Anadolu University that is responsible of central distance education can open special offices and counseling services throughout the country where necessary.

Distance Education Regulation, 1982.

OVERVIEW OF CURRENT SITUATION

Turkey, comprised of a cross section of various cultures, resources, technologies and commercially important markets, must train and organize the necessary human power to handle all these highly sophisticated matters without causing conflicts. The state has always tried to achieve and maintain international standards. Therefore it is not wrong to say the standards adopted for all aspects of education including distance education are both international and regional. Undoubtedly such standards are decided upon by international and regional conventions. Objectives of distance education are designed and arranged to meet national needs and international standards. These objectives are explained in detail above. But, of course, none of the objectives can be considered stationary. On the contrary, they are to be rearranged according to continuously changing needs of society and ever increasing requirements of modern life and technologies. The Distance Education Faculty, with its dynamic attitude, tries to re-organize itself to bring instant solutions to spontaneous demands and requirements in addition to the ones foreseen in the education plans of the state. The sixth Five Year Plan prepared by the State Planning Department, points to the need for increasing the quality and standards at every level of education. Accordingly, the contents of the courses are to be designed to meet the present and future demands as well as requirements. According to Article 840 of the plan to increase the efficiency of expanded and distance education, legal regulations are to be made to establish cooperation between related institutions. Article 860 of the same plan emphasises the importance of well trained qualified human power for the socio-economic development of the country. In connection with these articles, Article 269 describes the main objectives for distance education for the next five years as " . . . (to) gain a more flexible structure to provide more knowledge and skills in every field required by public." Distance education in Turkey is a national institution and the related duties are to be performed by universities. The main responsibility of organising distance education resides at Anadolu University. Accordingly, the Distance Education Faculty has been established and affiliated at Anadolu University to serve the whole country. Governing bodies are the same as other formal higher education institutions as foreseen in the No, 2547 Law and related regulations.

The Distance Education Faculty cooperates with non-distance education institutions when necessary and receives academic support. These relations can be expected to increase considerably in the future to meet the new demands.

In 1985 a two year Pre-License programme was started for primary school teachers, in which 140,000 teachers have been enrolled, 125,000 of them have already graduated, and 15,000 are still continuing the programme. Anadolu University Distance Education Faculty started another programme in 1989 which aims to train qualified manpower for the tourism sector, called the Tourism Training Certificate Programme. People who are at least secondary school graduates and between ages 16-25 are accepted into this programme, and current enrollment is 8,000. The program covers topics such as serving, catering, kitchen, and office. The courses, which last one year, are given in accordance with distance education methods through books and TV programmes. Two-month practising programmes have also been arranged at various tourist facilities.

Another programme worth mentioning is the Pre License courses started in the 1990-1991 academic year in Nursing and Hygiene to train the staff required by health services. Anadolu University Distance Education Faculty is also going to start a one-year programme in 1991 which will serve secondary school teachers. So far 54,000 secondary school teachers have enrolled. The programme offers education in Biology, Geography, Chemistry, Physics, Mathematics, Turkish Language and Literature.

Anadolu University Distance Education Faculty also provides education/training services for the student living abroad through the West-Europe Project. The Distance Education Faculty has 2,267 students living in Germany, Belgium, Holland and Switzerland enrolled in Economics and Business Administration Programmes. The examinations for these students are given in Berlin, Paris, Vienna, Bern, Brussels, Dan Haag, Frankfurt, Munich, Stuttgart and Hamburg. The Distance Education Faculty gives academic counseling and guidance services for the students living abroad in Koln, Duisburg, Frankfurt, Munich, Stuttgart and Berlin where the majority of the students live. The Distance Education Faculty also offers pre-license programmes for Turkish citizens living abroad, about 2,000 of whom participate. In addition to text books, TV and Radio broadcasts and face to face academic counseling, the Distance Education Faculty also provides counseling through telephone and well-prepared video education cassettes.

Sources of financial support for the Distance Education Faculty and its programmes can be divided into two groups. The first one is the state budget. Like all the other higher education institutions, the Distance Education Faculty receives approximately one-half of one percent from the state budget reserved for education. While this might seem insufficient, it's affiliation with Anadolu University means the Distance Education Faculty uses already existing university facilities. Additionally, it receives support in terms of teaching staff and facilities from other universities and also from government agencies such as Turkish Radio and Television, as well as the Ministry of Education. The second, but perhaps more important source is the revolving investment account comprised of education, examination and materials fees paid by students, which provides a considerable and dynamic source for further investments and rapid development. Revolving investment is a highly efficient means of creating financial support.

Statistical information provided in the following pages give the enrollment details, which illustrate the increasing demand for distance education since 1982, the year when regulations came into force to ensure the legal rights of the graduates of distance education. A comparison of the same academic years in Tables 8 and 9 clearly shows the increasing popularity of distance education. Students in the Distance Education Faculty are included in the figures beginning with the 1982-1983 academic year in Table 8.

TABLE 8: Higher Education Institutions Student enrollments, Graduates, And Teaching Staff BY Academic Year And BY Gender

Academic Years	Higher Education Institutions		Student Enrollment			Graduates			Teaching Staff		
	Universities	Faculties & Others	Male	Female	Total	Male	Female	Total	Male	Female	Total
1923-1924	1	9	2629	285	2914	-	-	321	307	-	307
1933-1934	1	17	5005	846	5851	622	138	760	533	41	574
1943-1944	1	26	14551	3742	18293	1420	439	1859	1146	257	1403
1953-1954	3	34	19090	4219	23309	2277	597	2874	1773	353	2126
1963-1964	7	83	61791	15490	77281	6114	874	7988	3451	917	4368
1973-1974	10	166	141661	35620	177281	20006	5296	25302	8778	2995	11773
1979-1980	16	347	203500	66778	270278	52542	15915	68457	15579	5120	20699
1980-1981	19	321	175558	61811	237369	23319	8522	31841	15605	5312	20917
1981-1982	19	334	174345	66058	240403	29454	11363	40817	16440	5783	22223
1982-1983	27	273	197962	83577	281539	24126	11018	35144	15975	5839	21814
1983-1984	27	286	213650	108670	322320	27086	12794	39880	14468	5865	20333
1984-1985	27	302	273028	125157	398185	29201	14663	43864	15413	6536	21949
1985-1986	27	310	303932	145482	449414	37700	20148	57848	16018	6950	22968
1986-1987	28	322	320624	160976	481600	44184	24376	68560	16797	7585	24382
1987-1988	29	335	327405	167776	495181	45964	26186	72150	18181	8430	26611
1988-1989	29	360	363570	188148	551718	46259	27335	73594	19178	8936	28114
1989-1990	29	378	419902	215927	635829	-	-	-	21162	10028	31190

Source: CEPES/UNESCO, 1990

TABLE 9: Number Of Distance Education Students BY Academic Year

	New enrolments			Total Number Of Students		
	Total	Female	Male	Total	Female	Male
1983-84	18892	4612	14286	40617	10335	30282
1984-85	31003	7621	23332	65456	16414	49042
1985-86	40455	11053	29402	98670	26351	72319
1986-87	42722	12219	30503	123804	35191	88613
1987-88	54209	15743	38466	133139	38082	95057
1988-89	64289	20890	43399	174711	52651	122060
1989-90	69146	23460	45686	228295	69931	158364

Source: State Institute Of Statistics, Higher Education Statistics, 1984-1990.

As Table 9 indicates, Distance education is popular among both female and male students. Although the number of female students is considerably less than the males, the figures clearly show the rate of interest.

The difference regarding the number of students between the various tables given on the following pages might be due to transfer students. As indicated under each table the main source is the State Institute of Statistics, but some other sources are also used to prepare the following tables. This might also be a reason for the difference.

TABLE 10: Distribution Of Quotas And Placements Among Programmes of the Distance Education Faculty Between 1985-1990

Programme		Quota General	Placement General	Disabled	Total
1985	Economics	12500	14988	12	15000
	Business Administration	37500	44991	9	45000
1986	Economics	12600	23376	3	23379
	Business Administration	38000	45528	4	45532
1987	Economics	13000	16465	3	16468
	Business Administration	42000	57352	8	57360
1988	Economics	15000	19140	8	19148
	Business Administration	45000	62193	15	62208
1989	Economics	20000	25270	13	25283
	Business Administration	45000	59749	24	59773
1990	Economics	20000	25093	11	25104
	Business Administration	45000	58269	15	58284

Source: State Institute of Statistics, Higher Education Statistics 1985-90.

As Table 10 indicates, Business Administration seems to be more popular among distance education students. But a careful comparison of the available quota and placement figures of the programme of Economics also points to the popularity of this programme.

After examining all the relevant information, prompt efforts to broaden distance education to offer programmes in other popular fields of interest seem inevitable. While state plans do not sufficiently satisfy present demand, they will require adjustments in the near future in order for significant progress to be made (State Planning Department, 1990). One of the most recent activities of the Distance Education Faculty worth mentioning here is a joint international project which is conducted by The European Institute for The Media. Various education and broadcasting (mainly television) institutions are involved in this education training oriented project. The project is called Channel E Project and Turkey is represented by Anadolu University. In accordance with the objectives of the project, the new broadcasting term started on June 17 1991. The broadcasting is provided via ASTRA Satellite to cover all European countries. The aim of the project is to train and educate the young Turkish population living throughout Europe. The education programme of 1991 consists of thirty television series and is designed to concentrate on improving Turkish language and culture, and various aspects

of Turkey and the tourism sector. The students who complete the programme will receive a certificate jointly prepared by Anadolu University and The European Institute for The Media. This certificate should give these young people better opportunities for employment upon their return to Turkey, especially in the tourism sector.

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VIETNAM

Tran Dinh Tan

THE NATIONAL CONTEXT FOR DISTANCE EDUCATION

From 1941 to 1975 Vietnam's economy was war based. This struggle for national liberation was strongly impressed by a socialist ideology and the liberated areas first in the north from the mid-fifties and then in the south from the mid-seventies established centralized socialist state economies. This economy was frozen by the U.S. led oil embargo which was imposed from 1975. Since 1986, the development of a private economic sector, with private family companies, and private factories has been encouraged by the government of Vietnam. The government continues to support the development of the State economic sector and local cooperatives. Thus, the need of education in economic development is increasing rapidly.

Vietnam's population is 66.2 million (1991). The rate of annual population growth is 2.2%. The language of instruction is mainly Vietnamese. The education system consists of formal and non-formal sectors, with non-formal education comprised of correspondence courses, part-time courses, open learning, and distance education courses. It is necessary to distinguish here the definition of Open Learning commonly used internationally, and "DAO TAO MO RONG" commonly used in Vietnam since 1985 (which has a literal translation of "Open"). "DAO TAO MO RONG" is used to refer to education and enrollment of the Formal Education System, but that was additionally admitted apart from the enrollment stipulated by the State Planning Committee. The DAO TAO MO RONG students are taught with curriculums and methods of the Formal Education System. They are not in the list of official enrollment, and they must pay all of their education fee. So, the word "Open" here refers only to excess enrollment from those stipulated by the State Planning Committee.

Distance Education can make use of a rapidly improving postal service, national and local radio and television broadcasts for several hours a day, and video and audio tapes.

HISTORY AND BACKGROUND

Every year the higher level formal education institutions are able to admit 10% of the country's secondary school leavers. Most of the rest have to take a course offered by the distance education system. Tens of thousands of technicians, engineers, businessmen, and administrators, need to be provided with modern economic knowledge and technology, through refresher courses, although in many cases recent economic theory is new to them. Thousands of demobilized soldiers need to be trained in economics and technology, so they can take part in the development of social production. Vietnam has fifty-three minority groups, most of which reside in remote and mountainous areas where movement is difficult. These people can only be served by the distance education system, which provides them with knowledge of health care, farming and agronomics, growing of medicinal plants, and economics, among others.

Since 1960, evening academic courses have been offered to adults. Since 1965, correspondence courses have been offered by higher and secondary institutions of formal education. The following instructional methods were combined: Self-study materials and textbooks; postal service; and face to face contact whereby students were required to attend a residential forty-five or fifty day session each school term of six months. In 1968 an institution specialising in correspondence and academic education was established in Hanoi. Since 1978 it assumed the additional task of offering courses in management and administration to managers and administrators of university or college, and professional secondary school.

Students of the correspondence courses were government employees, while a few were members of agricultural cooperatives. Students needed prior approval from the authorities and were fully paid while in school. They therefore did not pay education fees. The goal for most students was to obtain a degree or certificate in order to receive a salary increase or a better job in a government company or factory.

Some fifty academic institutions and seventy vocational secondary schools offered such correspondence courses, with curricula identical to those at formal education institutions. A strict entrance examination was required, with 50% of the applicants typically passing, and 45% to 50% of those admitted completing the course. The total number of graduates of non-formal education from 1960 to 1990 at the higher level is 662,833 (diploma), and at the secondary level is 275,475 (diploma).

Teaching programmes and courses were provided in dozens of subjects, including economics and management, agriculture science, engineering and technology, social science, law, civil engineering, and foreign languages, among others.

At present the formal education system in Vietnam, from the higher level to the secondary vocational level, operates under several constraints. The demand for education cannot successfully be met because the number of students who can be accommodated by institutions of higher learning each year represents only 10% of school leavers. A significant number of university graduates do not wish to work in rural areas, so there is a shortage of technicians, medical doctors, teachers, and other needed personnel in these areas. The duration of post secondary training courses is five or six years and often the content of the teaching programme is not linked with national needs and objectives. The reform process has been impeded by outmoded understanding of education and outdated institutional regulation. The system is biased against women, particularly mothers, and women in the workforce find entry to further education difficult.

Although fifty-three universities and seventy-three secondary vocational colleges have been offering courses by distance education, the curricula and teaching methods of these courses are a continuation of the formal education courses, so they may not always suit the students who are of older age and who work and study at the same time. The dominant factor in this system is that lecturers go to regional distance education centres for concentrated periods of time to give face-to-face lectures. Some print material and assignments are left with students for them to work on between visits. No specific distance education teaching material is produced. Therefore the enrollment is low, the range of courses is limited and the dropout rate is 50%. Rectors of participating colleges are open too busy managing on-campus courses to pay much attention to correspondence courses, and they are not inclined to upgrade the content and method of teaching in correspondence courses because of the time and labour needed.

Most universities and colleges of SR Vietnam are concentrated in the two big cities: Hanoi (northern Vietnam) and Ho Chi Minh City (southern Vietnam). In thirty-three of forty provinces there is no university. Students learning at a distance have to travel a long way to reach the colleges where face-to-face learning is provided. Many cannot afford the time and costs involved and eventually drop out.

Since 1975 the established provincial centres of distance education have been characterised as follows. Provincial centres of distance education are set up by the People's Committee of the province and recognised by the Ministry of Higher Education with financial allocation, with petrol and cars mainly provided by the provincial People's Committee. The enterprises and cooperatives that send staff members to Distance Education Centres also contribute financially. The Centre has a Director, teaching staff and assistants who assume the task of monitoring or giving teaching assistance.

The tasks of the Centres are to organise the courses in terms of recruitment and the teaching plan, to supervise students, and to sign contracts with universities for the provision of teachers. They also make accommodation arrangements for teachers and students during periods of face-to-face teaching and examination sessions. Often they request universities to run courses in a number of subjects, and to hold extra tutorial sessions for students if qualified teachers are available.

The teaching and organisation of examinations and the setting up of graduation examination commissions are assumed by the universities (which signed contracts with the centres). Currently there are twenty-six provincial centres and many study points in other provinces and districts.

Foreign language teaching is strongly characterised by the need for up-to-date technological and pedagogical information found in foreign language text books and by the need for interactions with foreign experts. In many localities foreign language courses are run at three levels, A-B-C (starting from A level). Some of them are held in the evenings, others in the afternoons or on Sunday mornings. Languages taught are English, French, German, and Russian (declining), among others. Japanese is becoming very popular. Language courses are organized in provinces by the Centres of Distance Education and in the cities by centres specialising in service language training.

There are several Distance Education Centres in industrial areas, such as: Da River power plant; Hongai coal mine; Thai Nuyen iron-steel factory; and Laokai Apatit mine.

The network of distance education faculties in universities as well as provincial distance education centres was supervised and monitored by the Department of Distance Education according to established principles and practices. The achievements of distance education in Vietnam have been immense. Nevertheless, the distance education system in Vietnam has been unable to meet the demand in the number of enrolled students and quality of training due to several factors. There is no centre which is responsible for designing the teaching syllabuses, for producing teaching materials (at low cost) to be delivered quickly and regularly to learners. Neither is there a centre responsible for producing audio-visual educational materials such as audio and video tapes, or slides. There is no professional distance education centre which carries out surveys, collection and translation of materials on distance education, and at the same time provides staff development courses for teachers and management staff.

Since 1986 the private, home economic sectors and foreign investment in Vietnam have been encouraged by the Vietnamese government. In support of the government's plan,

people at any age and of all social statuses are allowed by the Ministry of Education and Training to take any non-formal courses they need; but they must pay the education fee. In addition, institutions of formal education also admit more learners than the official enrollment stipulates and is granted by the government. The additional enrollments comprise System B. or an "Open" course. But the teaching programmes and methods are just the same as those of the formal education system (face-to-face instruction). Such education forms can only meet the educational needs of young people living in cities and towns, near a college university, or a secondary vocational school.

To address the problems mentioned above, the Ministry of Higher Education decided to set up a Vietnam People's Open University (VIPOU). This was approved by the Central People's Committee of SR Vietnam. It was intended to use the Institute for Management Cadres as a basis for this development. The Director of the Department of Distance Education was appointed Director of the Institute for Management Cadres and is the Interim Rector of VIPOU. In 1988 this institution was converted into the only institution in Vietnam offering distance education, and was named The Vietnam National Institute of Open Learning (VNIOL) where audio and video teaching tapes are now being produced.

VNIOL presently has two divisions and twenty-two Study Centres in the provinces. Division I in Hanoi is cooperating in its operation with twelve Study Centres in the northern parts of Vietnam. Division II in Ho Chi Minh City cooperates with ten Study Centres in the southern provinces of the country. Besides the courses offered by VNIOL, the National Radio and Television Centre provides three programmes in Distance Education everyday, including a sixty-minute language programme in English, French, and Russian, with an estimated 500,000 viewers and auditors, a thirty-minute programme on health care and basic knowledge in agronomy, and a thirty-minute programme (during summer vacation) on revision of knowledge at secondary school.

The number of viewers and auditors to the programmes is difficult to estimate. The programmes are partly managed and carried out by VNIOL, and partly by the Radio and Television Centre itself.

Since 1988 when VNIOL became the first Distance Education institution in Vietnam, it has been responsible for conducting research on the world's experience in distance education and applying it to Vietnam. VNIOL offers distance courses in organization, management, and technology to distance educators, teachers, and administrators. It designs and produces audio and video tapes to be sent to the Study Centres, and Radio and Television Centres. Moreover, it provides various types of courses depending upon the social demands of the year and those placed on specific categories of learners.

The types of students at VNIOL are mainly young people who have not had the opportunity to take face-to-face courses at a formal education institution. Adults take part-time and evening classes. Teachers at the primary or secondary school levels take refresher courses. Finally, young people and adults in rural areas, mountainous areas, and islands take public information courses.

The government gives financial support to build accommodation facilities, lecture halls, libraries, and laboratories, as well as for vehicles. It also provides a salary to teachers, and administrators, as well as a salary to students while they attend a residential face-to-face instruction session, and the cost of travelling to and from school. But the financial resources to produce self-study materials and other educational media are very few. Since 1985, students must pay part of their education fee to teachers. The number of

factories or companies that usually pays a salary to its employees while they are at school has decreased due to current economic difficulties.

In the coming years, greater development in the range of distance education operation in Vietnam is anticipated, for several reasons. The development of different economic sectors, with growing cooperation in economy, science and technology between Vietnam and overseas countries, requires more short-term courses with modern teaching content, and training in more than one foreign language. Most young people will need to take a distance education course while they fulfill their jobs at the work-place, because the government's budget to education is limited. Only a distance education system is able to meet the needs of education for millions of young people and people in remote islands and mountainous areas. This will help to develop the economy, and to achieve equality in social and economic development of minority groups in the areas where movement is difficult.

LEGAL STATUS

The legal status of distance education was determined early with a Prime Ministerial Decision signed by Le Thanh Nghi, the Deputy Prime Minister, on October 11 1962, which states as follows:

Promulgation of general regulations on establishment of Open Learning Institutions and courses at higher and secondary levels. -Upon the requirements of consolidation and development of Open Learning institutions and courses aiming at training cadres with academic and secondary knowledge. -Based on the request of the Ministry of Education (1).

WHICH DECIDES Article I -Promulgate general regulations on establishment of Open Learning institutions and courses at higher and secondary levels. Article 2 - The Ministry of Education (I) is responsible for instruction of implementation of the general regulations.

THE GENERAL REGULATIONS ON ESTABLISHMENT OF OPEN LEARNING INSTITUTIONS AND COURSES AT HIGHER AND SECONDARY LEVELS

Due to an increasing demand of Professional cadres with academic and secondary knowledge, that has not been met by conventional education institutions, in-service courses, part-time courses, evening classes and correspondence courses have recently been offered at factories, offices, and workplaces by some ministries.

These part-time courses provide learners with systematic curriculums in a rather long term, and aim at training cadres workers with academic or secondary knowledge or improving their knowledge. The organisation and management of the courses were not implemented by integrated regulations, even in their own way, thereby a good educational quality has not been achieved, thus resulting in the development of member of such courses,

So in time meet the above mentioned demand, part-time courses, evening classes, correspondence courses should be greatly developed together with the traditional instruction courses. A development of part-time schools and courses with academic and secondary teaching is needed to improve gradually the cadre's and worker's knowledge of technology and profession through Open Learning.

Aiming at the objective, the legislation defines purposes forms of part-time education, types of learner to be trained under the plan of part-time education institutions and courses at higher and secondary levels as follow:

I - PURPOSES

Item 1 - The major task of the Open Learning schools is to offer the "work and study at the same time" course to worker cadres, in a rule that "Ma worker/cadre of a specialty should be a learner of his/her relevant subject"; their teaching programme should be systematically produced and taught, and their students as completion of the course should be supplied with knowledge of a specialty at a higher or secondary standard.

Item 2 - The detailed purposes of the Open Learning schools are as follow: a. Non-formal secondary schools (Open Learning schools):

- Offer courses training workers at secondary level.
- Provide staff development courses at secondary level to cadres of basic knowledge.
- Offer staff refreshment courses to cadres presently holding a leading position who are required to have knowledge of a specialty, at secondary level.

b. Non-formal academic institutions:

- Providing workers, cadres of basic knowledge with academic courses.
- Offer refreshment and up-grading courses at higher level to cadres of secondary knowledge.
- Providing cadres presently in a leading position who are required to obtain academic knowledge of a specialty with staff development courses.

II - FORMS OF INSTRUCTION

Item 3 - The following major types of Open Learning courses can be taken upon the working conditions of each workplace:

- Evening course (or courses offered in ship): including face-to-face instruction after working time, learners are given lectures in group.
- Correspondence course: students are sent self-study material and only present on campus at a regular time for tutoring sessions, test or examinations.
- Evening and Correspondence course: mainly, students are supplied with self-teaching material, with on-campus sessions in the evening with tutor's help.

Besides, in terms of duration the courses can be held in a short term or normal term.

III - TYPES OF LEARNER TO BE TRAINED

Item 4 - The student's admission should be followed by the common procedures to a Formal education institution. Some changes of entrance requirement which can suit and help the development of non-formal education are possible, such changes can be administered by a parent ministry or department upon the following regulations:

- a. - A worker of a specialty should be a learner of his/her relevant subject. He/she can enroll to a course with subjects different from his/her specialty as he/she has approval of his/her parent ministry or department.
- b. - A student should have at least for a period experienced in his/her field of work before he/she takes a Open Learning course. A proper period of professional experience should be stipulated by a parent ministry or department.
- c. - A student must be identified to have a good point of view, good conduct, and good attitude and behaviour towards his/her work and study.
- d. - A student must have a qualification of basic education, a good health, and has not any infectious diseases.
 - A student must have a qualification of primary education (7th form) to enter an open learning course at secondary level, and a certificate of secondary education (both form) to enter an open learning academic course.
 - As a student has not any of the required qualifications, he/she has to be given supplementary education needed to a course, before he/she starts the course, and the course duration may be longer.

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- Quality of basic education especially in subjects essential to a course's curriculum ought to be achieved. Some priority can be applied to other optional subjects, but sooner or later the learner's qualification of a comprehensive primary education to a course at secondary level and his/her certificate of secondary education to an academic course are expected and required.

e. - Student's age is not really and necessarily regulated in general.

Item 5 - Priority is applied to the following in admission: cadres holding a leading position, dominant scientists and researchers, cadres or workers with good professional experience, with a good reputation to the revolution, labour heroes, outstanding farmers, soldiers, and workers.

Apart from those mentioned above, women, learners of minority groups, the regrouped southern people should be given proper priority.

IV - PLAN OF EDUCATION. AND CURRICULUM

Item 6 - A plan of Open Learning, and curriculum should serve objectives of Open Learning instruction, should be designed with principles, suited to approaches and methods to train professional cadres with secondary and academic knowledge. The Ministry of Education will give detailed instruction to the designing.

Item 7 - Every subject of the teaching plan must contain its curriculum developed under the direction and instruction of the Ministry of Education.

Item 8 - Plans of education, and subject's curriculum must be considered and approved by the parent ministry before a course starts. Any adjustments of education plan and curriculum must be approved by the Ministry of Education, and the adjustments are related to regulations set up.

Item 9 - The teaching programme of a non-formal education institution must comprise subjects (basic education subjects, politics, professional subjects, etc.) as stipulated in the teaching programme to formal schools. The politics must be taught with an integrated content. Learners who attended politics courses and were awarded by a non-formal school will not have to study the subject, but they have to take a test on politics.

Item 10 - In the programme of education the following must be defined: - Specific purposes of education.
- Course duration and total of hour. - Time distribution.
- Number of weeks spent on study, revision, test/examination, and holiday in a school term or year.
- Number of lessons taught within a week, hours of a lesson.
- Number of subjects, hours of study in each subject, sequence of the subjects of a school term, subjects with final examinations, subjects with tests of a school term, proportion in theory and practice, proportion of self-study and face to face instruction, forms and date of final examination. The duration must be clearly defined to each type of learner and subject.

V. - METHODS

Item 11 - Face to face instruction is the major education at evening classes. The evening classes must be given lessons with methods that serve the principles stipulated by the Ministry of Education. Besides face to face lessons, tutoring instruction can be provided, if possible, for revision and consolidation, or for student formerly absent with an acceptable reason.

Item 12 - The major education of a correspondence course is carried out with self-study material cent so learners and under principles and regulations stipulated by the Ministry of Education. The date of residential sessions for tutorial classes, tests, or examinations at one place or others must be identified annually.

Item 13 - All subjects written in the course curriculum must be completed with a test or an examination. There must be final examination at the end of the course. The performance of test or examination at a course completion and in admission to an upper course must be controlled and integrated by the Ministry of Education.

VI. - INTERESTS AND DUTIES OF LEARNER AND TEACHING STAFF

Item 14 - Students to open learning courses have the following interests and duties:

a. - Duties:

- Study well while working and fulfilling well the job at the workplace.
- Obey and have a good performance of the regulations in education. Students must ask their parent body for permission before they can drop.
- Students have to pay for their learning materials.

b. - Interests:

- Open learning students are given time off work for their study as regulated. After completion of a course, the graduates will be employed and treated as their counterpart from a formal course.

c. - Regulations on probation after completion

- Graduates of a subject relevant to their field of work are free from probation.
- Graduates of a subject irrelevant to their field of work must be on probation as regulated generally to their counterparts from a formal secondary or higher school.

Item 15 - Regulations to teaching staff

a. - Teachers of a formal secondary or high school who are assigned to give lessons to an evening class or correspondence course, the lesson given by them will be included in their total amount of teaching hour and paid under the present regulations on payment. If a teacher gives more lessons to the course than he/she is regulated, he/she will get an extra pay for his/her overtime work.

b. - An expert in an office, factory, or company who also takes a part in teaching to a course at a non-formal secondary or high school is allowed to spend a part of his/her office time on his/her teaching service, the amount of time stipulated and arranged by his/her parent office, and naturally he/she is paid for his/her service. His/her parent office has to provide him/her with an opportunity or favourable conditions to fulfill his/her work well at the workplace and to take an active part in teaching and research work.

The Circular by the Interministerial Body of the Ministry of Education, the Ministry of Finance, the Ministry of Labour, the Ministry of Security gives instruction on stipulation and arrangement of an amount of office time and payment to such an expert.

VII. - ORGANIZATION AND MANAGEMENT

Item 16 - A great development of open learning course, evening course or correspondence course is encouraged at any place where it is possible especially a development a non-formal course at secondary level.

A consideration and decision on offering of an open learning course at secondary and higher level must be made under the contemporary regulations to a secondary or higher school of formal education.

The number of annual enrollment to a non-formal education institution must be approved by the State Planning Committee upon a request of a parent ministry, or a provincial level executive committee .

Item 17 - To Schools with a lot of Non-formal Course and Annual Enrollment

a. - At a secondary or higher formal education institution where also open learning courses are offered, a board of directors in non-formal education can be established, or such an existing board can be additionally staffed with professional officers, or part-time experts.

b. - At other institutions offering open learning courses, a board of directors can be set up by parttime experts or professional officers; the board of directors can have a staff subject to the enrolment to its open learning courses.

- Arrangement of teacher to a non-formal course and certification at completion of a course is made and stipulated by a parent ministry or provincial executive committee.
- The Ministry of Education and the Ministry of Security will give detailed instruction on duty, authority, organization and management of a non-formal education institution.

Item 18 - Students to an open learning course, at a non-formal education institution are formed into classes for a convenience in their study and life in group. Detailed regulations of authority, organization and management of a non-formal education institution will clarify tasks, duties, interests, authority, organization and management of a non-formal school and its students.

Le Thanh Nghi
Deputy Prime Minister
(On behalf of the Prime Minister)

This was followed by an "Instruction by the Prime Minister", Pham Van Dong, September 30, 1963, about "giving the time off work to cadres and workers to follow the open learning courses offered by the open learning schools and classes of intermediate and higher level.

1 - Apart from the annual leave of absence permitted by the state, college open learning learners can have one or two months off work more for revision and exams every year.

In their final school year, apart from the annual leave permission, the learners can have one month off work more for their final examination. In case of making thesis or design the learners can have one to four months off work more.

2 - The time of revision, tests and examination applied for the intermediate open learning learners is as much as two-thirds the time for the college open learning learners.

3 - Basing oneself on the above instruction, the Ministries, Departments, executive committees of provinces and cities which the open learning colleges and schools belong to should negotiate with the Ministry of Education to define the specific time for each kind.

According to the arrangement of the schools, and after having been permitted by the office the learner can be free from work once or several times depending on the need of the revision, examination of the school year.

4 - All expenses for organizing the open learning schools and classes herein are paid by the state. There is no change in their salary whenever they are off work to revise their lessons and take examinations and the salary is paid by the original offices. In order to carry out this Instruction successfully, to reduce hindrance in production and salary budget, the Ministries and Branches which manage open learning schools and classes should pay attention to the following:

1) The enrolment should be planned annually. The enrollment norm must be put into the National Plan. The enrolment should not focus on part of the office or some factories only, otherwise they will meet difficulties in production and work.

2) Along with the enrolment, the alternates should be planned to replace the learners whenever they are busy with their revision, exams, especially their final examination. In order to limit the regular staff and save money, the administration and the Trade Union should encourage workers and clerks to undertake the learners' work. The alternates are admitted only in case of urgency, until the learners take their work again. The Ministry of Education, the Ministry of Finance, the Ministry of Home Affairs, the National Planning Department, Branches, the Executive Committee of Provinces and Cities Concerning the open learning schools and classes and learners are responsible for the execution and inspect the execution of this instruction.

These two pieces of legislation established the legal bases of all subsequent developments in distance education.

OVERVIEW OF CURRENT SITUATION

Aims and Objectives of Distance Education

The aims and objectives of distance education can be gleaned from the types of courses offered. From 1960 to 1985 the following courses were offered to students: professional training courses at the secondary level to workers and farmers; up-grading courses on new advances to technicians; and staff development courses in economics and technology to administrators of provincial governments and district governors. Most of the enrollees were paid by the State, some of whom were paid by an agricultural cooperative. They took a course in order to acquire better knowledge to meet the requirements and demands of the State.

Since 1985, private capital accumulation, as well as investment by both individual families and overseas companies in the private economic sector, have been encouraged by the government of Vietnam. Therefore, more young people (aged 20-25) enroll in distance education courses, and more short-term teaching programmes with realistic content specific to production and business have been offered.

Control, Organizational and Management Structure of Distance Education

The Ministry of Education and Training assumes the organisation and management of the whole distance education system. It approves the teaching programme of professional secondary and academic level, then inspects the actual performance of the programme. It approves the list of graduates to be awarded a degree. It administers and pays the salary for essential lecturers (teaching staff of a formal education institution at a professional secondary or higher level).

The provincial and district government and Union of Factories organize and manage the local distant education centres. They provide houses, lecture halls, campus, motor vehicles, and expenses needed for the courses offered at the local study centre, as well as pay staff members of the Distance Education Centre. They select and recommend graduates to gain entry at local places of employment, and supply students with education fees, room and board.

Vietnam National Institute of Open Learning (VNIOL) gives essential direction to the whole system of distance education. It designs and produces video and audio teaching tapes to be sent to provincial distance education centres, students, and to the central and local radio and television stations. Further, it carries out the tasks of compiling, writing and printing of bulk self-teaching materials. It offers staff development courses to teachers, administrators and managers of distance education centres. Finally, it conducts research into theories of world distance education, and introduces its experience in distance education to the distance education institutions of Vietnam.

Teachers who work part-time for the distance education institutions come from formal institutions; such institutions are also places where distance education students can use facilities for their laboratory, practical or field work. Nowadays these formal education institutions only provide part-time courses with regular residential sessions giving face-to-face instruction. They also give evening classes besides their formal teaching service.

Financing Distance Education

Sources of finance to distance education come from the central government and the provincial government. The amount provided by the two sources is usually only enough to pay the teachers and administrators; only a small amount of money is spent on printing self-teaching material and producing audio-visual teaching aids. An education fee is paid by the family of students or by the students themselves. Such fee is taken as an additional contribution to teachers' salaries. There are no sources of financial support from overseas countries or international agencies or organizations.

Geographical Coverage of the Provision of Distance Education

There are distance education courses in all forty-four provinces and cities of Vietnam, including six northern border provinces. This includes those in the central part which are mountainous areas where transportation and movement are not easy or convenient. Among those, Distance Education Study Centres have been established in thirty provinces. The centres constantly offer distance education courses, and each centre has a staff of 20 to 100 administrators, managers or monitors.

Instructional Systems

The major methods from 1960 to 1988 were self-study materials and instructional books, mail, and face-to-face contact. Since 1988 they have used the above methods as well as video and audio tapes (of poor quality, and only a few), and teaching broadcasts (a few hours a week). The first three methods are commonly used in many Centres.

Research is planned around the educational needs of the people of different ages and different economic sectors in Vietnam, and the training needs by overseas companies who are going to invest in Vietnam; and the designing of suitable teaching programmes and modern methods (1991). Research planned for the coming year will focus on teaching programmes, forms of instruction, language of instruction, and effective methods of distance education to young male and female minority students residing in the northern mountainous areas and in the central part of Vietnam. In 1992-1993, methods of evaluation of quality of distance education for students of different ages and different professions (in social science, natural science, state employees, private businessmen, employees of overseas companies) will be undertaken.

On-going research activities are examining the experience and methods of designing audio and video teaching tapes for public information, secondary and higher courses (1991). This will be followed by a focus on the methods of compiling and writing self-learning bilingual materials (in Viet-Thai language, Viet-Hnong language) and video and audio teaching tapes to groups of minorities in 1992-1993.

Enrollment in Distance Education

The following table illustrates enrollment rates for on-campus institutions, open learning institutions, and distance education broadcast courses for the period from 1960 to 1990, and the year 1989-1990.

TABLE 1: Educational Enrolment in Viet Nam by Type of Institution

	NUMBER OF STUDENTS	
	1960-1990	1989-1990
<u>FORMAL EDUCATION</u>		
Higher Education (Diploma)	2,027,373	108,800
Vocational Technical (Diploma)	2,625,059	138,000
<u>OPEN LEARNING</u>		
Higher level (Diploma)	662,833	38,842
<u>Vocational Technical</u>		
(Diploma)	275,435	18,760
Certificates:		
- Economic Management	180,730	58,840
- Foreign Languages	1,880,900	200,000
<u>DISTANCE EDUCATION</u>		
Foreign Languages (daily 60-minute broadcast courses)		500,000 (est)
Community Education (daily 30-minute broadcast courses)		100,000
Secondary Courses for Young People (daily 30-minute broadcast courses)		100,000
Correspondence and Video Tape Courses		6,000

The number of distance education students has been estimated and rounded off. There are also no doubt many auditors of the course programs who are not counted as enrolled students.

International Affiliation and Cooperation

VNIOL is currently the only institution specialising in distance education in Vietnam, though it has not been a member of a regional or international organisation of distance education. However, in the past three years it has received some material and had an exchange of information with the UNESCO-sponsored newsletter: NEVER TOO FAR, published at STOU, Thailand. A few Japanese language teaching materials of The Japan Foundation Japanese Language Institute were received, as well as some materials and documents of The University of New England, Australia. Correspondence has been exchanged with the

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National Institute of Multimedia Education (NIME-Japan); the Open University, Walton Hall Milton Keynes (UK); and Tele-Université (Québec, Canada).

VNIOL has not been supported by overseas or international organisations, but was provided aid by UNESCO/PROEAP for two Training Workshops. Currently, VNIOL needs aid for development of its Audio-Studio, Television Studio, and offset Printing shop, so that VNIOL will be able more effectively to organize and provide distance education in Vietnam. This is under discussion with Japanese and Australian aid dispensers.

Growth and Expansion in the Next Five to Ten Years

A vigorous development of distance education is expected in Vietnam. Hundreds of thousands of young Vietnamese people will continue to study using the distance education system because, due to economic difficulties, the annual enrollment in formal education institutions cannot increase. The demobilised soldiers can be estimated as 600,000 to 800,000 people. They should be provided with knowledge of economics and technology through distance education courses so they can take part in social production. Groups of minorities are residing in remote and mountainous areas where the traffic service is poor, travelling is difficult, and the weather and climate is very hard. They expect to be offered a knowledge of culture, economics, and technology through distance education, which can be provided to them in both their own language and the national language. Since April 1991 Vietnam has employed the satellite National 14 to televise its programme to all parts of the country. Many provinces now have their own television centre, so telecommunication services in Vietnam have greatly improved in recent years. But the development of broadcast distance education in Vietnam can only be implemented if VNIOL is supplied with equipment, and is capable enough to produce video and audio teaching tapes, and to print teaching materials.

Problems and Issues

The effectiveness and quality of distance education in Vietnam presents sophisticated problems. But experience proves that people who take a course with subjects relevant to their field of present work, and work in the same field after the course completion, often acquire a high-quality education. In subjects of social science, senior managers or administrators usually achieve better results in comparison to young people. Farmers who are tied to their rice fields, and minority people who are accustomed to and love their mountainous homeland often achieve poor results in theoretical areas of study. Their actual work and production, however, is often more successful and effective than those who are not interested in working and living in remote mountainous areas. Subjects with colour video tapes for illustration are easier for learners to study than those with only reading material and lectures. Finally, in language subjects, young people often seem to study better than adults.

ABBREVIATIONS

AADEP	Australian Association of Distance Education Principles
AAOU	Asian Association of Open Universities
ABC	Australian Broadcasting Commission
ACHS	Air and Correspondence High Schools
ADB	Asian Development Bank
AEC	Atoll Education Centers
AIDP	Australian International Development Programme
AIOU	Allama Iqbal Open University
APEI	Asia and the Pacific Programme of Educational Innovation for Development
APEID	Asian Programme of Educational Innovation and Development (UNESCO)
ASPESA	Australian and South Pacific External Studies Association
AVEC	Audio-Visual Education Centre
BIDE	Bangladesh Institute of Distance Education
BTT	Basic Teacher Training
CCC	Catholic Doctrine Correspondence Course
CEP	Condensed Education Programme
CEID	Centre for Educational Innovation and Development
CES	Centre for Educational Services
CIDA	Canadian International Development Agency
CODE	College of Distance Education
COL	Commonwealth of Learning
CRTVU	Central Radio and Television University
CTSDC	Curriculum, Textbooks, Supervision Development Center
CES	Centre for Extramural Studies
CUHK	Chinese University of Hong Kong
CUT	Cutin University of Technology
CVC	Community Viewing Centers
DDE	Department of Distance Education
DE	Distance Education
DEANZ	Distance Education Association of New Zealand
DEC	Distance Education Centre
DEEC	Distance Education English Course
DERRC	Distance Education Regional Resource Centre
DTEC	Distance Teaching English Course, Maldives
DTT	Department of Teacher Training
ESA	External Services Agency
HECS	Higher Education Contribution Scheme
HMG	His Majesty's Government
IACE	International Association for Continuing Education
ICDE	International Council for Distance Education
ICIHE	International Council for the Innovation of Higher Education
IDRC	International Development Research Centre
IGNOU	Indira Gandhi National Open University
IHTES	Interstate Heads of TAFE External Studies
ILO	International Labour Organization
IOE	Institute of Education
ITM	Institute of Technology in Mara

JSC	Junior Secondary Certificate
KACU	Korea Air and Correspondence University
KEDI	Korean Educational Development Institute
KSA	Korean Standard Association
LU	London University
MOEC	Ministry of Education and Culture
MOET	Ministry of Education and Training
NDE	National Department of Education
NFEU	Non-Formal Educational Unit
NIEMT	National Institute of Educational Media and Technology
NIME	National Institute of Multimedia Education, Japan
NTV	Nepal Television
ODA	Overseas Development Agency
OLI	Open Learning Institute, Canada
OLHK	Open Learning Institute of Hong Kong
OPP2	Second Outline Perspective Plan
OU-UK	Open University, the United Kingdom
OUSL	Open University of Sri Lanka
PCP	Personal Contact Programmes
PNGADE	Papua New Guinea Association for Distance Education
PNU	Payame Noor University
PROAP	UNESCO Principal Regional Office for Asia and the Pacific
PRTVU	Provincial Radio and TV Universities
PTOC	Primary Teachers' Orientation Course
RTTP	Radio Teacher Training Project
RTP	Radio Tuition Programme
SAARC	South Asian Association for Regional Cooperation
SBP	School Broadcasting Programme
SICHE	Solomon Islands College of Higher Education
SIMs	Self-Instructional Materials
SLBC	Sri Lanka Broadcasting Corporation
SLC	School Leaving Certificate
SLIDE	Sri Lanka Institute of Distance Education
SLMs	Self Learning Materials
SOU	Singapore Open University
SPACE	School of Professional and Continuing Education
SPADE	South Pacific Association of Distance Education
SPOC	South Pacific Organizations Coordinating Committee
STOU	Sukothai Thammathirat Open University
TAFE	Technical and Further Education Colleges
TFYP	Third Five Year Plans
TTC	Teacher Training College
TVUs	Television Universities
UA	University of the Air, Japan
UGC	University Grant Committee
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Family Planning Association
UNICEF	United Nations Children's Fund
UPE	Universal Primary Education

UPNG	University of Papua New Guinea
USAID	United States Agency for International Development
USM	Universiti Sains Malaysia
USP	University of the South Pacific
UT	Universitas Terbuka
VAOP	Victorian Association of Off-Campus Providers
VOM	Voice of Maldives
VSO	Volunteer Service Overseas
WHO	World Health Organization

LIST OF NATIONAL COORDINATORS AND CONTRIBUTORS

Country	Name	Position/Address
Australia	Arger, Geoff	Assistant Director Distance Education Centre University of New England Aridale, N.S.W. 2351 Australia
Bangladesh	Haque, Shamsul	Professor Institute of Education and Research University of Dhaka Dhaka- 1000 Bangladesh
China	Zang, Jinping	Deputy Chief of the President Office of CRTVU Central Radio & TV University No. 83, Fuhsing Road Beijing, 100856 P.R. CHINA
Hong Kong	Dhanarajan, G.	Director The Open Learning Institute of Hong Kong 9-13/FI., Trade Department Tower 700 Nathan Road, Mongkok, Kowloon Hong Kong
India	Datt, Ruddar	Principal School of Correspondence Courses and Continuing Education University of Delhi 5 Cavalry Lines Delhi - 110 007 India
Indonesia	Suparman, Atwi	Assistant Rector Universitas Terbuka Jalan Cabe Raya Pondok Cabe, Ciputat 15418 Indonesia
Iran	Zohoor, H	Chancellor Payam-E-Noor University P.O. Box 19395 K97 Teheran Iran

Japan	Kato, Hidetoshi	Director-General National Institute of Multimedia Education 2-12 Wakaba, Chiba-shi Maihama-ku, Chiba 261 Japan
South Korea	Kim. Synghan	President Society of Distance Education Korea Air and Correspondence University #169 Dongsung-dong, Chongro-ku Seoul 110-791 Korea
Laos	Chanthala. Khamtanh	Vice-Minister Ministry of Education and Sports Vientiane Laos
Malaysia	Ahmad, Qasim	Director Centre for Off-Campus Studies Universiti Sains Malaysia Minden, Penang 11800 Malaysia
Maldives	Brahmawong, Chaiyong	Professor of Education School of Education Sukhothai Thammathirat Open University 9/9 Muangthong Dhani Road Nontaburi 11120 Thailand
Myanmar	Maung, U Min	Director-General Department of Higher Education Thaton Road, Yangon Myanmar
Nepal	Shrestha, Gajendra Man	Professor and Head Central Department of Curriculum and Evaluation Faculty of Education Tribhuvan University Kirtipur Campus, Kathmandu Nepal
New Zealand	Prebble, Tom	Director and Associate Professor Extramural Studies Extramural Centre Massey University Palmerston North New Zealand

Pakistan	Siddiqui, Shaukat Ali	Professor of Education Faculty of Education Allama Iqbal Open University Sector H-9, Islamabad Pakistan
Papua New Guinea	Guy, Richard	Co-ordinator - Education Studies Department of Extension Studies The University of Papua New Guinea Box 320 University P.O. Papua New Guinea
Singapore	Dhanarajan, G.	Director The Open Learning Institute of Hong Kong 9-13/FI., Trade Department Tower 700 Nathan Road, Mongkok, Kowloon Hong Kong
University of . South Pacific	Mathewson, Claire	Director Extension Services University of the South Pacific USP Center, Extension Services P.O. Box 1168, Suva Fiji
Sri Lanka	Kothalawala, D.E.M. (Mrs.)	Professor of Education Education Division Faculty of Humanity and Social Sciences The Open University of Sri Lanka Newala, Nugegoka Sri Lanka
Thailand	Brahmawong, Chaiyong	Professor of Education School of Education Sukhothai Thammathirat Open University Nontaburi 11120 Thailand
Turkey	SoZen, Nur	Professor and Coordinator International Relations Ankara University Tandogan Meydani, Ankara Turkey
Vietnam	Tan, Tran Dinh	Rector Vietnam National Institute of Open Learning Vien Dao Tao Mo Rong NHA B-101 Phuong Bach Khoa Quan Hai Ba Trung Hanoi Vietnam

LIST OF PROJECT TEAM MEMBERS

A Survey of Distance Education in Asia and the Pacific

A study conducted by:

The National Institute of Multimedia Education (NIME), Japan

Director-General: Hidetoshi Kato

Ad visors:

Marco Antonio R. Dias, UNESCO, France

Hidetoshi Kato, NIME, Japan

Muhamad Selim, UNESCO-PROAP, Thailand

Leonardo De La Cruz, UNESCO-PROAP,

Thailand Keith Harry, ICDL, Open University, U.K.

Members of the Research Team:

Japan:

Project Director: Suk-Ying Wong, Ph.D., Associate Professor, NIME

Takehiko Kariya, Ph.D., Associate Professor, NIME

Aya Yoshida, M.A., Associate Professor, NIME

Atsushi Hamana, M.A., Associate Professor, Kansai Women's Junior College

Satomi Sato, Ph.D., Lecturer, Seitoku University

Keiko Yoshihara, M.A., University of Tokyo

International Visiting Scholars:

Chaiyong Brahmawong, Ph.D., Professor, Sukhothai Thammathirat Open University, Thailand

Joanne LaBonte, Ph.D., JSPS Visiting Research Fellow, U.S.A.

Geoff Arger, M.Ed., Assistant Director, DEC, The University of New England, Australia

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