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A COMPARATIVE STUDY OF SINGLE-MODE AND DUAL-MODE  
DISTANCE-TEACHING UNIVERSITIES IN  
INDONESIA, AUSTRALIA AND NEW ZEALAND

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by

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## DECLARATION

I certify that the substance of this thesis has not already been submitted for any degree and is not currently being submitted for any other degree or qualification.

I certify that any help received in preparing this thesis, and all sources used, have been acknowledged in this thesis.

*Aminudin Yuhani*  
.....

## ABSTRACT

Distance education has played a key role in national strategies to educate a skilled workforce in Indonesia, Australia and New Zealand, although these strategies are implemented in rather different ways. This thesis presents a comparative study of single-mode and dual-mode distance-teaching universities. The purpose of the study is to explain the different approaches, philosophies and methods of the two systems, compare and contrast their key characteristics, and make policy suggestions. Three institutions have been selected for in-depth case study; Universitas Terbuka (UT) or Indonesia's Open University, the University of New England (UNE) in Australia and Massey University (MU) in New Zealand.

Case study and grounded theory are used in the research, involving fieldwork, documentary analysis, interviews and observation as data-gathering instruments. The present study focuses on the management and organisation of distance-teaching universities, one area of distance-education research which seems to have been neglected. Various theories developed by researchers and scholars in distance and higher education are used as frameworks for analysis (See: Balderston, 1975; Bergquist, 1992; Clark, 1983; Keegan, 1990; Peters, 1983; and Rumble, 1989a). The study has been conducted during turbulent times, coinciding with major restructuring at both institutional and national levels. This complicated the research effort without undermining it. Nevertheless, interesting findings were achieved.

The findings of the comparative study indicate that a number of factors -- history, philosophy, politics, economics, socio-cultural, and technological change -- have contributed to the establishment of distance-teaching universities in each country, and influenced the decision on whether to opt for a single-mode or dual-mode system. Although it is difficult to draw clear-cut differences between the two systems, it can be concluded that both have distinctive features of their own as regards institutional cultures, management style, organisational design and flexibility. Both also have similarities regarding the characteristics of their distance-education enterprise, the application of distance-education theories, their functions as universities, and their contribution to expand access.

Experience in Australia and New Zealand has indicated that distance-education programs can be well developed in traditional universities. The dual-mode system seems to offer a promising alternative for Indonesia, where academic resources are scarce. Both government legislation and regulations enable traditional Indonesian universities to offer programs by distance education. However, there are a number of problems that need to be addressed prior to embarking on such a distance-education venture.



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## ABBREVIATIONS

BES	- Board of Extramural Studies
CAE	- College of Advanced Education
CIDA	- Canadian International Development Agency
CTEC	- Commonwealth Tertiary Education Commission
CUES	- Centre for University Extramural Studies
DEC	- Distance Education Centre
DEET	- Department of Employment, Education and Training, Australia
DEOLC	- Distance Education and Open Learning Centre
DES	- Department of External Studies
DGHE	- Directorate General of Higher Education, Indonesia
EFTSU	- Equivalent Full Time Student Unit
EXMSS	- Extramural Students Society
ICDE	- International Council for Distance Education
IKIP	- Institut Keguruan dan Ilmu Pendidikan (Institute of Teacher Training and Educational Studies)
MOEC	- Ministry of Education and Culture, Indonesia
MU	- Massey University
NSW	- New South Wales
PC	- Personal Communication
SCH	- Semester Credit Hour
TAFE	- Technical and Further Education



UGC - University Grants Commission  
UGM - Universitas Gajah Mada  
UI - Universitas Indonesia  
UKOU - United Kingdom Open University  
UNE - University of New England  
UNS - Unified National System  
UNZ - University of New Zealand  
UQ - University of Queensland  
USQ - University of Southern Queensland  
UT - Universitas Terbuka (Indonesia's Open University)

UNIVERSITAS TERBUKA

## Chapter 1

### INTRODUCTION TO THE STUDY

#### Overview

Distance education at the university level is the subject of this research, which sprang from my long-term professional interest in the area. As a staff member of Universitas Terbuka (UT), Indonesia's Open University, I have lived daily with the problems confronted by a recently established non-traditional higher-education institution in a developing nation. My enrolment as a doctoral candidate at the University of New England (UNE) has provided me with new insights. As a person who comes from what is referred to as a "single-mode" institution, placement at UNE provided me with an opportunity to learn more about "dual-mode" institutions. Undertaking a comparative study of the two systems has allowed me to better understand the characteristics and problems of both, to draw tentative conclusions and to comment on the implications for Indonesia of the Australian and New Zealand experience.

The term distance education means in essence any educational transaction conducted at a distance. It is characterised by the geographic separation of the teacher or institution and the learner, the significant role of institutional planning and management of distance-education programs, the use of mediated instruction, the provision of two-way communication and the individualisation of the learning process. It may be referred to by related terms such as correspondence education, external studies, extramural studies, or non-traditional and independent studies (Keegan, 1986). At

the university level distance-education courses may be provided by open universities, by traditional universities which develop distance-education programs, or by consortia of institutions and agencies collaborating to offer distance-learning programs.

Growth in distance-education enrolments internationally has been dramatic in recent times. The International Council for Distance Education (ICDE) has recently estimated that there are over 10 million students throughout the world currently taking degree courses by distance education (Kaye and Rumble, 1991). As governments try to meet the rising expectations of their publics and develop the skills necessary for the generation and management of economic growth, the problem of extending access to educational and training opportunities has occupied a great deal of attention. It is generally agreed that in many countries traditional, on-campus teaching alone cannot meet the urgent need for more student places, especially in developing countries with large populations and relatively limited resources. As a result, there has been considerable interest in the capacity of distance education to bridge the gap between current provision and planning targets for the future.

The provision of mass higher education has become an important policy objective of many governments. While most developed countries have achieved this stage, with approximately one-half of the college-age population having some sort of tertiary training, Third World countries have considerably lower participation rates. Distance education can offer significant contributions to expanding access, enabling universities to teach far more students than they would otherwise be able to do, to teach students living at a distance



from the campus, and to overcome problems such as physical disability and work or other commitments (Kaye and Rumble, 1991).

Distance-teaching universities have roles similar to campus-based institutions, teaching being their major function together with research and community service. While many countries, including Indonesia, have recently created open universities to cater for the needs of adult students learning at a distance, Australia and New Zealand have for a long time developed dual-mode universities which enrol both traditional and distance students. Both open and dual-mode universities have similar functions as distance-teaching universities, although they operate in rather different ways.

It is believed that open universities have the advantage of enrolling a large number of students. Many countries with large populations, such as Indonesia, have opted for an open-university model rather than dual-mode universities, which have been operated in countries with small and widely-dispersed populations such as Australia and New Zealand. In Indonesia, the problem of increased access and equality of opportunity in university education is a major challenge for which the UT attempts to offer a viable alternative. As many open universities in other countries, the UT had to deal with the question of credibility in its early operations because of its radical departure from traditional universities. Nevertheless, since many senior academic staff from conventional universities write the course material, the problem of credibility can be reduced gradually to a somewhat lesser extent, and there has been an increasing use of course materials developed for UT students by traditional campus-based students.

In countries like Australia and New Zealand, student demands for increased flexibility and freedom to learn involving a variety of study modes and learning aids have challenged many dual-mode universities. "Convergence" between distance and campus-based education in terms of methods and clienteles has become a recent important trend to respond to that challenge (Kelly and Smith, 1987). The boundaries between the two are becoming blurred as rapid advances in technology facilitate improved communication and information transmission, and as learning resources become more widely distributed. According to Kelly (1987), in Australian dual-mode universities, where there is an integration of internal and external teaching, both campus-based and distance education have much to gain from further integration in terms of expanding the range of courses available to distance-education students; economising on teaching functions; allowing campus-based students greater flexibility in choosing from a range of resources and strategies for learning; and removing the necessity of regular campus attendance.

Convergence of campus-based and distance education can be perceived as moving towards becoming open-learning systems. In an open-learning environment students will have a greater freedom in terms of admission, choice of study modes and subjects, choice of assessment, and use of communication technology to facilitate learning (Johnson, 1990). There is wide-spread evidence of convergence. In Australia and New Zealand internal students are using materials designed for distance students. Distance education has a significant potential to improve the quality of education of the population through the use of distance-teaching materials and technologies



for mixed-mode study by students in different institutions (NBEET, 1992).

### Purpose

The purpose of the study is to explore the different approaches, philosophies and methods of both single-mode and dual-mode distance-education institutions. The former offer courses at a distance only, while the latter provide both campus-based and distance teaching. The study examines the structural characteristics of the two models, and compares and contrasts their strengths and weaknesses. Three institutions offering programs by distance education were selected for in-depth case study, i.e., (1) UT in Jakarta, Indonesia, (2) UNE in Armidale, New South Wales (NSW), Australia, and (3) Massey University (MU) in Palmerston North, New Zealand. The analysis is set in the historical, social, cultural, philosophical, economic and political contexts that underlay the creation and development of these systems in each country. It is hoped that the comparative nature of the study will facilitate transfer of knowledge among institutions in different countries.

The present study pays particular attention to the management and organisation of distance-teaching universities. Distance-teaching universities generally require substantial differences in management style and organisational design from traditional campus-based universities because the way teaching is conducted is different in traditional and distance education. Open universities particularly represent a significant departure from traditional university management,

because of their industrial and business-like approaches to management. Management and organisation play vital roles in both campus-based and distance-teaching universities. The point is presumably that campus-based and distance-teaching universities require rather different management styles, but the distinction is not simple or clear-cut -- and the situation is further complicated by the fact that profound changes are taking place in university management as a whole.

Management is generally referred to as the activities and procedures used to orient and direct the work of an organisation. Managers play a key role in establishing goals, planning, organising, allocating functions and resources, and monitoring and evaluating activities. Organisation literally means act of putting activities, resources and personnel into working order to achieve common goals. The present study examines how distance teaching is managed and organised in the three institutions, and particularly focusing on to what extent the management style of each of the distance-teaching universities is different, how the culture of different institutions affects management and teaching activities, and how distance-teaching processes are carried out in different distance-teaching institutions. On a broader scale, the study also deals with the "mega issue" of the ways in which distance-teaching universities are set up as the single-mode or dual-mode system.

The research will concentrate on addressing a number of problems emerging in distance-teaching universities in the three countries, using theoretical frameworks developed by various researchers. A number of key ideas on managing and organising contemporary universities are used as conceptual



frameworks to assist analysis. Critical reflection can then be undertaken on the relevance of recent theory on topics such as academic management, organisation and instructional arrangements to distance-teaching universities. Some ideas of governing contemporary campus-based universities are borrowed to analyse distance-teaching universities. For example, Balderston's ideas (1975) that today's universities are a mixture of institution, enterprise and agency are relevant to distance-teaching universities. Universities are institutions which provide students with academic training and, in so far as the government is concerned, they are agencies which receive funding from the government. However, contemporary universities have tended to become more and more enterprise-oriented, and in open universities such an orientation becomes very important as many open universities rely more and more on generating their own revenues rather than relying on government funding.

In distance education, individualised learning is predominant rather than group learning as in classroom-based education (Keegan, 1990; Rumble, 1989a). Distance learning requires students to learn, teachers to teach and institutions to support distance students using different styles from traditional education. Because of significant technological developments, distance teaching has also developed from traditionally being based on correspondence to involving a wide variety of instructional media. Apart from print material as the major learning resource for distance students, both single-mode and dual-mode universities have employed more significant use of media such as audiotapes, television broadcasts, radio, and more recently increasing use of

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intereactive technology and computer-mediated communication (Bates, 1991). These developments as well as the characteristics of distance education have important consequences for how teaching and learning are conducted in distance-teaching universities, and how a distance-education institution is managed. A radical distance-education theorist such as Peters has emphasised the need to make a comparative analysis of distance teaching and industrial production, which has led him to the development of the theory of industrialisation in distance education (Peters, 1983).

Within distance-teaching universities, there is a debate between single-mode and dual-mode systems, each of which has its own following (Mugridge, 1992). Both systems have developed well and the number of their enrolements have increased significantly. There is no "right way" of organising a distance-education institution (Rumble, 1986). There are also important conflicting ideas related to management and culture in academic organisations (Baldrige, 1971; Bergquist, 1992; Clark, 1983) that will be considered, and there is a question as to how such theories specifically relate to distance-teaching universities. These are some of the management and organisation issues which the present study attempts to focus.

Case-study method and grounded theory were the strategies used in this research. Case studies attempt to describe and analyse a social unit in its context, and they involve on-site data collection, called fieldwork. Grounded theory attempts to investigate areas where little theory has been developed, and it is based on data or phenomena being observed.

The fieldwork for the project involved conducting observations, interviewing, and analysing documents. Observation was necessary to familiarise the researcher with phenomena being investigated, to understand how institutions are actually run and how people within the institutions behave towards particular phenomena. Interviews with the academics, administrators and students of each institution were undertaken to collect additional information and clarify issues obtained through the documentary analyses. Semi-structured interviews were used to accommodate the subjects' opinions, feelings and attitudes. Documentary analysis proved to be a powerful method for data collection. Documents are a rich and useful source of information as they often are able to speak for themselves. The documents used include institutional publications, government policy statements, research reports, statistical data and other references related to the institutions. Combining of these methods of information gathering enables the researcher to obtain rich information for further interpretation.

### Background and Context

The history of distance education dates back to the middle of the 19th century when correspondence instruction was introduced by commercial colleges in England. In the early 20th century, correspondence education at the tertiary level, mostly developed by special units or academic departments in conventional universities, spread throughout the world, from Europe and North America to many other countries including Australia. In 1970, a major development in distance education

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was the foundation in the United Kingdom of the first Open University (UKOU), which was intended solely for students learning at a distance. Since then many other open universities have been established in Europe, Latin America and Asia, and this development has clearly been a significant innovation in international higher education (Shale, 1987).

There has been dramatic growth in demand for higher education at a distance in the three countries being studied. In Indonesia, the need to establish an open university in 1984 was dictated by the rapid growth in the number of high-school graduates. With a population of approximately 180 million, the country now produces around one million high-school graduates each year. However, while primary and secondary schools have grown very quickly, tertiary institutions increased at a much lower rate, making access for increased numbers of secondary-school graduates to tertiary education increasingly difficult (Setijadi, 1988).

In 1986 there were only about 82,000 student places available in government higher-education institutions for more than 486,000 applicants. The number of applicants could have been considerably higher than that, as only those who applied for government entrance examinations were counted and the number of graduates from senior high schools in 1986 was more than 900,000 (Setijadi, 1988). The growing demand for higher education has also been the result of the low labour force absorption. State institutions could only absorb about a third of the demand, while private institutions charged extremely high fees. The continued demand for places in universities made the creation of the UT inevitable, as the government ruled out setting up additional conventional institutions at the time

because of lack of resources.

The UT was developed as an autonomous, centrally-controlled university granting external degrees solely, as a more decentralised system was considered very difficult to implement. Professor Setijadi, the foundation Rektor (or Vice-Chancellor), looked at two alternatives during the preparatory period. The first option was centralised control, in which everything, except tutorials would be run by a central office. The second alternative was to have a central office control course development and examinations only, with everything else, i.e., registration, record-keeping, tutorials, finance and other administrative matters, being run by regional offices or by participating universities. It was decided to choose the first alternative, because it was considered easier to implement, given the short preparation time available (Setijadi, 1988). Initially the UT had to accommodate 65,000 students, and by 1992 the UT had more than 180,00 students.

In Australia, distance education began in 1911 at the University of Queensland (UQ). Over the period until the end of the 1980s, the UQ distance-education system evolved and expanded to meet the needs of students who were denied access to conventional university education. In 1955, UNE, as a newly autonomous institution, started external teaching mainly to upgrade poorly-trained teachers working in country areas of NSW and to provide the opportunity for working adults to study at the university level (Ortmeier, 1982). These two institutions were the real pioneers of Australian distance-teaching universities.



Although more recent Australian universities have adopted rather different systems for distance teaching, the basic organisational model remains that developed by UNE. The "New England" dual-mode system has been modified by other Australian distance-teaching universities, particularly those created following the establishment of the UKOU. For example, founded in the 1970s as a dual-mode institution, Deakin Univeristy in Victoria was set up with some influence from the UKOU, particularly regarding course development and centralised resource allocation (Calvert, 1992). The University of Southern Queensland also was designed as a dual-mode institution but with less emphasis than UNE on face-to-face student contact and, initially at least, more stress on the use of educational technology.

The basic characteristic of UNE distance education is the integration of external and internal teaching. The same staff teach and assess both internal and external students enrolled in the same or equivalent courses. In theory, this is meant to achieve parity of standards of internal and distance students. The organisational approach of such an arrangement usually involves the creation of a separate distance-education directorate to handle administrative tasks, while the regular academic departments are responsible for teaching external students.

At UNE, external teaching began with 331 students in 1955 (Sheath, 1965), and rose to 4998 in 1979 (Smith, 1979). Distance-education enrolments continued to grow. In 1991, the UNE had no fewer than 19,174 students across its campuses in Armidale, Coffs Harbour, Northern Rivers and Orange (UNE, 1991). By 1992 UNE Armidale had 9,493 external students out of

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a total enrolment of 14,653, one-third being post-graduates (Chick, 1992). While by Asian standards, such as those of Indonesia, this number is small, UNE has the largest enrolment of external students of all Australian distance-teaching universities.

Steady growth has been a characteristic of distance education in Australia in recent years. For instance, in the decade from 1975, the number of students undertaking external studies increased much more rapidly than total students. In universities alone the number of students doubled to over 16,000 in 1985. Students enrolled externally in various universities and colleges in the middle of the 1980s numbered some 45,000 or 12 per cent of total higher-education students and about 8 per cent of total student load (Hudson Report, 1986). In 1991, enrolments in distance higher education were almost 57,000 (NBEET, 1992). The number of institutions offering courses at a distance also grew considerably so that by the late 1980s most tertiary institutions were involved in some sort of distance-education program. Following the appointment in 1987 of Mr. John Dawkins as Minister for Employment, Education and Training, the Federal Government introduced a policy which had attempted to reduce the number of institutions offering distance education.

In New Zealand, before the 1960s, extramural studies was introduced through the University of New Zealand (UNZ). As in the case of Australia, the demand for offering extramural courses came mainly from practising school teachers scattered throughout the country and so unable to improve their qualifications (Owens, 1985). The demand was met with the creation of MU, which began enrolling distance students in

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1964. Since then there has been a changing pattern of enrolments, with many other groups as well as teachers becoming interested in upgrading their qualifications through distance education.

Continual growth in numbers and range of courses has been a feature of MU extramural programs. Starting with 510 students enrolled for 4 first-year BA units, by 1984 the number reached more than 10,000 students enrolled in 350 papers for 8 different degrees, 18 diplomas and 3 certificates, offered by 7 out of 8 MU faculties (Owens, 1985). In 1992 MU had approximately 15,700 extramural students, studying approximately 600 extramural papers or course units, compared to only 9,000 internal students (Pech, 1993). As the only major provider in the country, MU thus had a larger distance-education enrolment than any Australian provider.

As a dual-mode institution like UNE, MU was established as a pragmatic response to the existing New Zealand situation, with the main purpose of using available resources. New Zealand is a small country with only 3.3 million population, compared to Australia which has more than 17 million people. Because of the difference in population size and political system between the two countries, it is not surprising that there is only one major provider of distance education at the university level in New Zealand, compared to eight major providers in Australia. One of the main reasons for using a dual-mode approach in New Zealand was the fear that a separate extramural degree would be regarded as inferior (Owens, 1982). Similar thinking operated in Australia when UNE entered distance education.

Many different factors have led to different approaches being employed in the three countries in order to meet the demand for off-campus higher education. In Indonesia, the creation of the UT was possible because of the political will of the Government, assisted by funding from international agencies, such as the Canadian International Development Agency (CIDA) and the World Bank. The UT was built in the era of effort to achieve mass higher education. In Indonesia, the UT was developed primarily as a response to the pressure of an escalating increase of high-school graduates and to the problem of limited places in state universities for these recent graduates. In contrast, in Australia and New Zealand, distance education was primarily a response to a distance and access problem. However, in both cases there were other motivations as well. For example, the creation of some dual-mode universities was a wish to create more flexible approaches to teaching using better quality teaching materials, and more importantly to attract student enrolments, particularly for institutions like UNE and MU being located in rural areas with a relatively small surrounding population.

#### Significance and Limitations

It is hoped that the present study will prove useful to both scholars and administrators since to date there has been very little systematic research on the organisation and detailed approaches of different kinds of distance-education institutions. The research aims to assist distance-education institutions to reflect on what they do, assist educational planners at both system and institutional levels, and encourage

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further research on the organisation and management of distance education. Despite the fact that distance-education enrolments internationally have dramatically increased, distance-education management attracts a surprisingly small amount of research attention.

In practical terms, the research aims to make a contribution to the theory and practice of distance education for the following reasons. First, the analysis and assessment of both types of institution attempts to reveal the strengths and weaknesses of each system, which might prove to be useful feedback for the institutions. Second, the findings of the present study may help institutions to be more reflective, innovative and creative in developing their programs. Third, there are important differences and similarities, from which institutions can learn from one another, in the provision of distance-education courses in terms of programs, objectives, strategies, organisation and management styles.

Organisational varieties in distance education exist, despite the fact that most institutions share similar goals of providing a chance for those unable to gain access to conventional university study. Keegan (1983, 1990) uses the term "typology of organisational models" to analyse distance-education provision. A typological model is a simplification of complex organisational reality. According to Keegan (1990), distance-teaching institutions can be classified into two main groups: autonomous institutions and mixed institutions. For the purpose of the study I prefer the terms "single-mode" and "dual-mode" institutions to refer to the respective entities suggested by Keegan.

In practice, there are numerous varieties of institutions which fall into the two broad categories. For instance, within autonomous institutions, there are those that are centrally controlled (e.g., the UKOU, UT), those that employ a more decentralised system (e.g., Universidad Nacional de Education a Distancia or UNED in Spain), and private as well as public correspondence schools and colleges. Similarly, variation is also found within mixed institutions, such as the independent-study division of extension colleges in North America, and the Australian integrated system (Keegan, 1990).

Holmberg (1983a) argues that there are at least two different schools of thought on distance education. One school places emphasis on individual study and non-contiguous tutoring on the basis of use of course materials produced for large groups of students. This model represents the type of industrialisation leading to rationalisation and economies of scale, and considers distance education to be essentially different from face-to-face education. The other model emphasises parallelism with on-campus study, and usually also includes face-to-face teaching in groups as a significant element. This model considers distance education as an expansion of on-campus teaching, both of which demand virtually similar requirements.

More explanation is needed to clarify this argument, as the differences between the two systems are far more complicated than those put forward by Holmberg. The point to make here is not that institutions should align themselves into the two categories of distance education, but rather that institutions can learn from each other. It is important to study the characteristics of the single-mode and dual-mode



system because little systematic research has been attempted to understand actually how they work. A Norwegian distance educator has argued as follows:

Before we arrange ourselves in schools or types, we ought to put a lot more work into identifying structural elements of distance education, and explore various combinations of them across different organisations, different groups of students and educational contexts.

The fundamental questions are not whether the integrated model is the best one, whether broadcast media or face-to-face sessions ought to be used, whether small-scale operations are better than large-scale, and so on. Fundamental to me is: What can we learn from each other? How can the experience of other types of institutions be incorporated into the development of my own system of distance education? (Ljosa, 1984:108)

Improved understanding of the two systems of distance education and lessons to guide practice are probably the most substantial potential contributions of this thesis to the field of distance education.

The study has some limitations in addressing the variety of both models. Only three universities have been selected for in-depth analysis. Additionally, since the three countries in which each of the institutions are located developed their own distinctive features, this limits generalising from the findings. Of course, this is a universal problem confronted in making international comparative studies. However, even the differences themselves reveal interesting patterns, particularly as to how different policies are made in response to particular demands within each context. Thus there are common themes to share as regards problems, challenges and more importantly experience and achievement in offering distance education at the university level.

## Organisation of the Thesis

The thesis is organised as follows. Chapter 1 presents an introduction to the study, outlining its purpose, context and significance. Chapter 2 deals with methodological approaches, setting out both the research methods and data-gathering techniques. Once the purpose and method have been clarified, Chapter 3 reviews the relevant literature and research in university distance education. Chapter 4 provides the contextual background of distance higher education in Indonesia, Australia and New Zealand, discussing policy developments in distance education at the higher-education level. Chapter 5 presents the case study of Universitas Terbuka, from which arises the perspective of the research. The UT is the institution I have been involved with as a staff member, and at the same time as a "student" since my appointment in 1985.

Chapter 6 and 7 present case studies of the University of New England and Massey University respectively. As a "student" of both universities, I am more familiar with UNE, where I have spent most of the time during the last four years as a doctoral candidate, than with MU. However, the support provided by Massey staff, particularly the Director of the Centre for University Extramural Studies, enabled me to become a good "student" of Massey, too, despite the shortness of my visit in 1992. Chapter 8 offers a summary of findings and conclusions.

## Chapter 2

### METHODOLOGICAL APPROACHES OF THE STUDY

This chapter begins with the overview of methods used in distance-education research. Two major research strategies were used in this study, i.e., qualitative case study and grounded theory. These methods required fieldwork, in which documentary analysis, interviews and observation were conducted. As the study involved universities across three different nations, there were problems in data gathering, analysis and conduct of the study, especially as a result of rapid changes in the three institutions being observed.

#### Overview of Methods in Distance Education Research

Methods of social inquiry are generally classified into qualitative methods and quantitative methods. Social researchers have debated the merits and limitations of both qualitative and quantitative methods in research, which have different features in terms of focus, philosophical roots, goals, design characteristics, data collection, mode of analysis and findings (Merriam, 1990). The methods also differ in terms of the overall approach, emphasis, and type of evidence used (Van Maanen, 1979; Yin, 1984). To some extent the difference between them can be viewed as a trade-off between breadth and depth (Patton, 1980). While qualitative methods typically produce a wealth of detailed, in-depth information about a small sample, quantitative methods make possible the measurement of many subjects to produce comparative and statistical aggregations of data. In distance



education, quantitative methods have been used widely in areas such as surveys of student characteristics (See: Clyde et al., 1983; Dodds et al., 1984; Powles and Anwyl, 1989; and Hiola and Moss, 1990), and the economics and costs of distance education (See: Wagner, 1973, 1977; Rumble, 1986; and Muta and Sakamoto, 1989).

Social and educational inquirers recently have turned increasingly to qualitative methods because of their potential to better understand naturally occurring phenomena in the social world, and because of dissatisfaction with quantitative approaches which tend to reduce the complexity of human experience to statistical analyses. Qualitative approaches can be used as a powerful means of understanding educational phenomena and improving educational practice. They involve interpretive techniques in order to understand the meaning of naturally occurring phenomena in the social world (Van Maanen, 1979), and often adopt a holistic approach, assuming that the whole has greater meaning than the sum of its parts (Patton, 1980). They usually are inductive in the sense that they begin with specific observation to arrive general patterns, and they are naturalistic in that there is no manipulation of the research setting (Patton, 1980).

Qualitative methods have had an important influence on distance-education research because of their ability to produce generalisations in a phenomenological sense (Morgan, 1984). The use of qualitative methods, particularly ethnography, case study and grounded theory, has the capacity to improve the quality of conceptualisation and theoretical development (Minnis, 1985). These three strategies are similar in that their main purpose is to develop an analytical description of

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human behaviour in a naturalistic setting (Darkenwald, 1980). A substantial amount of recent research in various aspects of distance education has been undertaken involving qualitative methods (See: ADB, 1987; Kaye and Rumble, 1981; Koul and Jenkins, 1990)

Various approaches to researching distance education have been suggested in the literature. One creative way to understand distance education is through "critical reflection," as suggested by Evans and Nation (1989). Critical reflection involves "the process through which human beings use their analytical powers to assess elements of their lives against their explanatory frameworks (theories)" (Evans and Nation, 1989:10). This approach emphasises socio-historical factors in the development of practice, research and theory in distance education. The basis for the understanding of critical reflection is a view about the nature of social life and how it is constituted. Critical reflection in distance education analyses the practices which engage people in shaping their own learning experiences and involves practitioners in probing their work in the pursuit of improvement. Based on empiricism, critical reflection is a precursor to change because it encourages people to improve their lives in their own terms (Evans and Nation, 1989).

A more recent theorist, Moore (1990, 1991), has stressed the need for distance-education theory and for research based on the generation of hypotheses and empirical testing, so that scholars can talk using the same language. Research and theory are needed since they are necessary ingredients for our better understanding of the field. Such theory should be based on analytical studies. Prescriptive and descriptive principles

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can be of little use, as distance education exists in various circumstances. Analytical research is needed to produce a good theory which has accurate prediction. This theory may be drawn from a number of disciplines, in respect to the interdisciplinary nature of distance education.

The present research adopts the qualitative case study and grounded theory as major research tools, as it attempts to understand areas where little research has been undertaken, or to build theory. Analysis is made as regards the teaching, management and organisation of three distance-teaching universities. As universities are social institutions, critical reflection is required in order to better understand the dynamics of human aspects behind those institutions. As regards the interdisciplinary nature of distance education, it is necessary to analyse distance-teaching universities by using theoretical frameworks developed in other fields such as business and industrial management.

### Qualitative Case Study

A case study is an intensive investigation of a social unit or units in a field setting. The case-study method thus requires fieldwork in order to obtain information, involving documentary analysis, observation and interviews. The case-study method has for a long time been used in a number of disciplines, especially in the social sciences and medical sciences as well as legal sciences (Merriam, 1990). Educational inquiry has employed case-study research to explore the processes and dynamics of educational practice. Case-study methods have also been used to understand the governance and



sociology of universities (Balldridge, 1971; Meek, 1982). The work of Balldridge (1971) concentrates particularly on analysing three basic thrusts affecting a university as a complex organisation, i.e., policy formulation, conflict, and change. In distance-education research, a number of case-study reports have been produced (ADB, 1987; Kaye and Rumble, 1981; Koul and Jenkins, 1990; Rumble and Harry, 1982; UNESCO-ICDE Report, 1990).

The logic for using case study can be attributed to the arguments that many questions cannot be answered by experimental methods and statistical analyses (MacDonald and Walker, 1977). A case study is used to answer the "how" and "why" questions, when the investigator has little control over events and when the focus of the study is on a contemporary phenomenon within some real-life context (Yin, 1984). As a methodological framework, it has many strong points, particularly if "(a) there are few data assembled on the topic; (b) the research is basically exploratory; (c) the objective is research in depth; and (d) change and dynamic processes are crucial to the investigation" (Balldridge, 1971:33).

The purpose of a case study is "to study intensively the background, current status, and environmental interactions of a given social unit: an individual, group, institution, or community" (Isaac and Michael, 1981:48). Case studies probe in-depth to investigate a social unit and to produce a complete and well-organised picture of that unit (Van Dalen, 1966; Isaac and Michael, 1981). They begin with the purposeful selection of a case or site followed by the organisation of data-gathering procedures. They can be undertaken by using evidence derived from fieldwork, archival records, verbal

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reports, observation, or any combination of these (Yin, 1981).

As a research tradition, the case study finds its roots in Chicago in the 1920s, inspired by the methods and techniques of social anthropology (Walker, 1986). As a research method, it has a respected place among theory builders from a wide range of disciplines (MacDonald and Walker, 1977). Good case-study research can be described as a combination of the work of an artist and scientist. Walker (1986:197) argues that "the best case studies transcend the boundaries between art and science; pertaining to both coherence and complexity."

A qualitative case study usually builds theory, so it employs an inductive rather than deductive mode of thinking, and aims at the discovery instead of the verification of theory (Merriam, 1990). In contrast to the scientific paradigm of quantitative research, which sees the world as being made up of objective things, the qualitative case study assumes that the world as a highly subjective phenomenon which requires interpretation rather than measurement. Qualitative case-study researchers should not predetermine hypotheses, manipulate variables or administer a treatment. So qualitative case-study research tends to be exploratory and inductive, emphasising processes rather than ends. It generally has the following characteristics: it is pluralistic (focusing on a particular phenomenon), descriptive (producing a rich and thick description of the phenomenon), heuristic (illuminating the reader's understanding of the phenomenon), and inductive (relying on inductive reasoning) (Merriam, 1990).

Case-study designs may involve multiple cases, with an embedded approach requiring multiple units of analysis (Yin, 1989). The multiple-case designs have been frequently used

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recently because the evidence from multiple cases is often considered more compelling and more robust. When multiple-case studies are used, the design usually follows replication logic, which is similar to that applied to multiple experiments, rather than sampling logic. The development of a theoretical framework to guide the replication procedures becomes crucial in designing multiple-case studies (Yin, 1989).

Two types of case studies have been frequently used in adult and continuing education research. First, the "within-case design" looks intensively at a situation with the purpose of examining the relationship of multiple variables within a bounded system. Second, the "cross-case design" synthesises the lessons learned from a number of cases for the purpose of developing more generalised explanations (Minnis, 1985).

The case study has the following strengths. Case-study data, although difficult to organise, are "strong in reality," because case studies are "down-to-earth and attention holding, in harmony with the reader's own experience, and thus provide a natural basis for generalisation" (Adelman, Jenkins and Kemmis, 1983:8). Case studies give attention to the complexity of the case in its own right, and they allow for subsequent interpretation. They can be considered as "a step to action," and their insights can be readily interpreted and put into use for those concerned (Adelman, Jenkins and Kemmis, 1983). They produce a rich and holistic account of phenomena, and offer insights and illuminate meanings that expand their reader's experiences. They can bring about understanding and perhaps improvement of educational processes, problems and programs (Merriam, 1990).

Criticism of the case-study method is often related to ethical issues and problems related to particular biases of the researcher (Guba and Lincoln, 1981), particularly in qualitative case studies in which there are problems associated with the sensitivity and integrity of the investigator (Riley, 1963 in Merriam, 1990). MacDonald and Walker (1977:185) say that "case-study research in education takes the researcher into a complex set of politically sensitive relationships," an area which is vulnerable to bias. Other limitations relate to the fact that case-study methods rely heavily on human instruments and that case studies generally present partial accounts (MacDonald and Walker, 1987).

Case studies tend to be time consuming, and hence expensive. The reports can be lengthy and consequently left unread by policy makers. Case-study researchers may collect a huge amount of data while at the same time missing the significant aspects. In addition, training and experience in interviewing, doing fieldwork, observation and document analyses are required particularly by beginners in this method (Minnis, 1985). Good case studies are produced when these limitations can be eliminated or at least reduced. The selection of the case-study design depends upon the research problems and questions being asked. The decision to use the case study rests with the researcher. And more importantly, the reasons for choosing the case study can be justified on the grounds that "its strengths outweighs its limitations" (Merriam, 1990).

The present qualitative case studies examine change, policy formulation and conflicts, and how teaching, management and organisation are conducted in three universities. They

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seek to reveal the detailed characteristics, strengths and weaknesses of dual-mode and single-mode universities. With little research being undertaken in the area, the case-study method suits the purpose of the research, which attempts to understand phenomena on a naturalistic setting.

### Grounded Theory

Grounded theory originated from the work of two American sociologists, Barney Glaser of Columbia and Anselm Strauss of Chicago. The former was influenced by quantitative methods, and the latter by qualitative approaches. With each having different backgrounds, the two attempted to find systematic ways of conducting qualitative research. The theoretical underpinnings of grounded-theory research are derived from pragmatism (e.g., Dewey and Mead) and symbolic interactionism (e.g., Park and Burgess, Thomas and Znaniecki, Hughes, and Blumer) (Corbin and Strauss, 1990).

Grounded theory is "one that is inductively derived from the study of the phenomenon it represents" (Strauss and Corbin, 1990:23). Instead of being concerned with how accurate facts can be obtained and how theory can rigorously be tested, issues which earlier dominated the thinking and writing on sociological method, Glaser and Strauss (1968) concentrate on how the development of theory from data can be furthered. Their argument is that "theory based on data can usually not be completely refuted by more data or replaced by another theory" (Glaser and Strauss, 1968:4).

They suggest the use of a "general method of comparative analysis," that is, applying the logic of comparison to analyse

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social units of any size (Glaser and Strauss, 1968). This method serves a number of purposes, such as to establish empirical generalisations, to specify a concept, and to verify or develop theory (Glaser and Strauss, 1968). Making comparisons and asking questions are two important analytic procedures of grounded theory, which is thus also often referred to as "the constant comparative method of analysis" (Glaser and Strauss, 1968; Strauss and Corbin, 1990).

An important component of grounded-theory research is theoretical sampling, that is, "the process of data collection for generating theory whereby the analyst jointly collects, codes, and analyzes his data and decides what data to collect next and where to find them in order to develop his theory as it emerges" (Glaser and Strauss, 1968:45). In theoretical sampling, consideration should be given to which groups to select for comparisons, why and how. Theoretical relevance, from which categories develop, is the principal criterion in the selection of comparison groups for the discovery of theory. So group comparisons are conceptual, involving diverse or similar evidence indicating the same conceptual categories and properties (Glaser and Strauss, 1968).

According to Glaser and Strauss, the selection of groups for comparison should be based on the conceptual-scale and population-scope generalities. Apart from that, the comparison groups should indicate the differences and similarities of data that bear on the categories being studied. Part of the decision about which groups to select is the problem of how to choose groups for theoretically relevant data collection. Grounded theory researchers must remember that they are active samplers of theoretically relevant data, and hence must

continually analyse the data to see where the next theoretical question will take them (Glaser and Strauss, 1968).

A grounded theory should describe, explain and predict phenomena. It should meet four criteria for the applicability of theory to a phenomenon: fit, understanding, generality, and control (Strauss and Corbin, 1990). Its procedures are designed to develop a well-integrated set of concepts that provide a thorough theoretical explanation of social phenomena under study (Corbin and Strauss, 1990).

Although since its inception grounded theory has not changed its basic form, its procedures have been elaborated in more detail. According to Corbin and Strauss (1990), the principles and procedures of grounded theory can be summarised as follows.

1. Data collection and analysis are interrelated processes.
2. Concepts are the basic units of analysis.
3. Categories must be developed and related.
4. Sampling in grounded theories proceeds in theoretical grounds.
5. Analysis makes use of constant comparisons.
6. Patterns of variations must be accounted for.
7. Process must be built into theory.
8. Writing theoretical memos is an integral part of doing grounded theory.
9. Hypotheses about relationships among categories should be developed and verified as much as possible during the research process.
10. A grounded theorist need not work alone.
11. Broader structural conditions must be analyzed, however microscopic the research.

(Adapted from: Corbin and Strauss, 1990)



Grounded theory has weaknesses. Some people consider it as much art as it is science, and hence it requires a high degree of researcher creativity and sociological imagination (Minnis, 1985). The role of the investigator is central in grounded theory. Other criticism of grounded theorists particularly emanates from two questions posed by those schooled in logical positivism. To use Minnis' words, the questions are: "How does one know the theory is true; and to what extent is it true? Frequently there are no answers which suffice" (Minnis, 1985:196).

Grounded theory can be of great use to understand phenomena that are not well investigated. The comparative nature of the present study requires the researcher to use grounded theory, which allows for comparison and contrast of phenomena being studied. For instance, the researcher can examine the decision-making processes, management styles and instructional methods of the three distance-teaching universities under study, and then compare and contrast them.

The qualitative case-study method and grounded theory share similarities and the two appropriately serve the purpose of the research. As Darkenwald (1982:68) also observes, "case studies ..... resemble grounded theory when the researcher's main intent is to develop an analytical description ..... in a naturalistic setting." Using three cases, the researcher will be able to make comparative analyses, which in the end will lead to theoretical conclusions on the issues being studied. These strategies involves a number of data-gathering techniques, i.e., fieldwork, document analysis, interviews and observation.

## Fieldwork

Case-study methods involve the collection of data on site, referred to as fieldwork, the recording of data and its presentation (Stenhouse, 1988). Fieldwork involves "that process of evoking, gathering, and organising information which takes place on or in close proximity to the site of the events or phenomenon being studied" (Stenhouse, 1988:50). It includes "collecting and evoking documents, observing, and measuring and collecting statistics" (Stenhouse, 1988:51). In a program evaluation, for instance, multiple sources of information are sought in fieldwork because no single source of information can be trusted to provide a comprehensive perspective of a program. The strength of fieldwork relies on the use of a number of evidence collection methods to yield valid and reliable findings (Patton, 1980).

The qualitative method is dependent on competent fieldwork. It is through fieldwork that important documents are obtained, interviewing is undertaken, and observation takes place. In the fieldwork setting the researcher joins the subjects' world. He or she keeps a written record of what happens as well as collecting other forms of descriptive data (Bogdan and Biklen, 1982). The naturalistic style of fieldwork serves as an important technique of qualitative data collection, and constitutes one of the strengths of qualitative study.

It is imperative for qualitative researchers doing fieldwork to collect the necessary information. Fieldwork enables the researcher to get the feeling of what is going on and participate in a number of activities in each of the

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institutions. This was an important task of the present study, in which fieldwork enabled me to get to know key people in each of the institutions. It is important to develop a rapport with such informants. It is through this means that significant amounts of information can be collected, particularly when there is open communication between the researcher and the people of the institutions being investigated.

### Documentary Analysis

Documents are a powerful and useful source of information, and are usually readily available. They have received the least attention from social scientists, although there has been growing interest in their use in recent times. In case-study research, documentary analysis can be used to strengthen evidence from other sources (Yin, 1989). Documents provide a rich, factual, natural and nonreactive resource of information, which is available on a low-cost basis. They enable supplementary and contextual data to be gathered (Guba and Lincoln, 1982).

According to Van Dalen (1966), document analysis is also referred to as "content," "activity," or "informational analysis." Document analysis can be viewed from the perspective of communication theory, and that one form of document analysis is concerned primarily with the "what" or "message" portion of the communication (Guba and Lincoln, 1982). It involves identifying coherent and important themes and patterns in the data with a purpose of organising and simplifying the complexity of data into meaningful and manageable categories (Patton, 1987).



The use of document analysis as a method of data collection can proceed in two different ways. First, it can involve content analysis of the documents themselves. Second, documents may be analysed as "representatives of broader classes of theoretical rubrics," which may produce new and broader forms of data (Guba and Lincoln, 1982:252).

Documents can help the researcher to describe specific conditions and practices, spot trends and weaknesses and describe the subjects' biases, attitudes, values and interests (Van Dalen, 1966). Although documentary research may produce much valuable information, it has limitations. For instance, some documentary research findings can be of little value because the researcher fails to analyse a representative sample of source materials (Van Dalen, 1966). Another weakness relates to trustworthiness, as not all source materials are necessarily reliable (Best, 1977).

Documents speak for themselves, although the researcher has to be careful, particularly concerning who has written the document, in which context and for which purpose was it written. Documents are written by people for a number of purposes, such as, to review, to evaluate, or simply to provide an historical account and describe a course of action. Institutions such as distance-teaching universities produce lots of documents. The documents being investigated in this study include such things as minutes of meetings, institutional publications, review reports, evaluation reports, newsletters, statistical booklets, planning documents, institution yearbooks and calendars, and printed course materials. For instance, publications such as "Smith's Weekly," "Distance Education News," and "UNE Gazette" at the UNE, "Extramural Newsletter"

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and "Extramural News" at MU, and "Suara Terbuka" at the UT can be useful sources of information related to current developments in each institution.

## Interviews

An interview is a purposeful conversation directed to obtaining information (Bogdan and Biklen, 1982). As one of the oldest and the most respected tools in inquiry, interviewing should be thought of as an indispensable tool of the naturalistic inquirer; however, it should not be conceived of as "a single faceted approach" (Guba and Lincoln, 1982:155). Interviewing is a highly individualistic activity involving a set of techniques and requiring an exchange of information and impressions, carried on in a variety of styles. Compared with the questionnaire, the interview is more flexible, more personal and serves as a better exploratory tool.

Interviews may take several forms. They may be highly structured, like orally administered questionnaires, or so unstructured that even the interviewer does not know what will emerge. They may concentrate on a single event or situation. An interview may take place in a group setting, or with a panel, or with more than one interviewer being present. It may be covert, and the subjects may not know that they are being interviewed (Guba and Lincoln, 1982). In a case study, open-ended interviews are the most commonly used, allowing an investigator to ask key respondents for facts and opinions, and even encouraging respondents to offer their insights into certain occurrences (Yin, 1989). Another type of interview, called "a focused interview", is undertaken for a short period

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of time, requiring the researcher to follow a set of questions derived from case-study protocol (Yin, 1989).

The content of interviews may vary from asking about experience or behaviour, opinion or value, and feeling or knowledge, to seeking background or demographic information (Patton, 1980). In qualitative interviewing, it is important to provide a framework within which respondents can express their ideas and understanding in their own words. Therefore, an interview guide will be advantageous to develop at the early stage. The interview guide comprises a list of questions that are to be explored in the course of an interview and is prepared in order to make sure that the same information on particular issues can be obtained from a number of people (Patton, 1980).

In this study, a semi-structured interviewing technique was used to obtain information and allow for flexibility. Much information was obtained without missing important points. Interview guides were prepared, but the researcher had flexibility to pursue further questions relevant to the purpose of the research and to gain important information from the interviewees. It is obvious that there might be important issues relevant to the research but beyond the questions prepared in the interview guide. Administrators, academics and a few students of the three institutions under study were the subjects of the interviewing.

Administrators of the single-mode system were asked about problems and advantages of having a single-mode institution, whether centralised or more decentralised administration was efficient, whether the institution provided the support required by students, and what sort of support services

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students needed. They were asked about the extent of cooperation with other institutions and the functions of regional centres. The single-mode university has only distance students, allowing no comparison between internal and distance teaching in that institution. So academic staff were asked about the problems of having courses developed by contracted academics from other established institutions.

The questions asked to academics in the dual-mode university were slightly different. Academic staff in the dual-mode institution, for instance, were asked to express their opinions, attitudes and feelings about their involvement in internal and distance teaching. They were also asked whether they were satisfied with the current arrangements, whether changes were needed and what sort of changes were required. Administrators were asked about the problems, difficulties and also advantages of running distance-education programs in a conventional university. A few students were asked their opinions and experiences in learning at a distance.

### Observation

Observation is fundamental in social research, for it produces facts, one of the basic elements of science (Van Dalen, 1966). Qualitative data can be obtained through observation. The purpose of observational data is to describe the setting observed, the activities occurring in that setting, the people participating in those activities, and their respective significance. Its value lies in the understanding of program activities and impacts through detailed descriptive information about that particular program and the people

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involved in it (Patton, 1980).

Yin (1989) uses the term "direct observation" to refer to a field visit to the case site so that the investigator is creating the opportunity for direct observation. In this way, some relevant behaviours and environmental conditions, apart from the historical phenomena, will be available for observation. In terms of techniques, the observations can range from formal, requiring observational data-collection protocol, to casual data-collection activity (Yin, 1989).

According to Guba and Lincoln (1982), the methodological arguments for observation (particularly participant observation) can be explained as follows. First, observation maximises the researcher's ability to grasp motives, beliefs, concerning interests, unconscious behaviours, customs, and the like. Second, it allows the researcher to see the world as the subjects see it, to live in their time frames, to capture the phenomenon in its own natural terms, and to grasp the culture in its natural environment. Third, it provides the inquirer with access to the emotional reactions of the subjects introspectively and thus permits the observer to use him- or herself as a data source. And finally, it allows the observer to build on tacit knowledge, both his own and that of members of the group (Guba and Lincoln, 1982).

Observation is crucial in a qualitative study. The qualitative researcher will find it difficult to describe, analyse and feel the behaviour of the people, the environment, and the context in which the study is being undertaken without actually observing what is going on. For example, it is only through the actual observation in residential or tutorial classes that the researcher can sense and feel the enthusiasm

and lively discussion among distance students during the face-to-face component of their studies. Similarly, the researcher can only understand the pressures and difficulties experienced by staff in developing and distributing study material to meet tight time schedules, as well as pressures encountered by administrators in making management decisions, by watching these processes and talking to people directly involved.

#### Problems in Data Collection and Analysis

The conduct of qualitative study involves data collection and analysis. Data are the raw materials that form the basis of analysis. They include materials such as interview transcripts, observation field notes and other documents. As evidence and clues serving as facts, data ground the researcher to the empirical world (Bogdan and Biklen, 1982). Once data collection is completed, the next step is analysis, that is, the process of systematically arranging data into useful information to increase understanding of the phenomena. For the purpose of this research, data analysis was undertaken both during and after data collection in the field. The former is advantageous to focus the data collection on a particular area of interest. The latter enabled the researcher to make critical analyses and reflections so that reliable findings could be achieved.

Qualitative research design is loosely planned. Plans evolve as researchers learn about the setting, subjects, and other sources of data, through direct examination. Qualitative researchers may enter the research with some idea about what

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they will do, but a detailed set of procedures is not formed prior to data collection (Bogdan and Biklen, 1982). As data accumulate from the field and documentary study, the researcher may concentrate on a particular aspect of interest to be investigated in detail. Thus, the researcher may gather voluminous data, but in the end only a few topics may be given attention for detailed analyses.

Qualitative research is time consuming and takes a great deal of energy for data collection and analysis. Therefore, a preformulated outline is necessary to provide guidelines and to prevent the researcher from accumulating unnecessary data. The present case studies differ somewhat in the actual topics covered. This was because the researcher was dependent on what data were available in each case, and because of differences between the cases.

Another problem was the distant location of two of the institutions from the researcher's home base. This made it difficult to keep up to date with rapid changes within the institutions. Universities are always renewing themselves because of both internal and external pressures. Policies soon become obsolete and are replaced by others. It was impossible to spend an equal amount of time in the three universities to do fieldwork. However, communication with various key people, particularly those at MU and the UT, was maintained through the use of a number of media, such as electronic mail, facsimile, and telephone as well as the regular mail system, so that up-to-date information could be obtained.

The case studies were undertaken in times of major restructuring in the three universities. At UT, new policies were made in response to new Government regulations and

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contracts which benefited the UT. Additionally, a new Rektor (Vice-Chancellor) was appointed. At UNE, there were major changes associated with the formation of the network university and major overhaul within the distance-education directorate. At MU, there also was internal restructuring involving the move to a semester system and the reorganisation of the registry functions related to extramural enrolments.

At the national policy level, major reform was undertaken in the three countries which had significant impact on the provision of distance higher education. In Indonesia, there was a new Education Law introduced in 1989, followed by a number of Government Regulations on Higher Education. The publication of a "White Paper" on higher-education policy in Australia had an enormous impact on the provision of distance education in universities. In New Zealand, too, new policies were developed, such as on post-compulsory education and training and the introduction of fees in universities, and they had an influence on extramural studies. Consequently, the present research report required constant revision to update information as a result of rapid changes in the three countries.

These changes posed problems during data collection, analysis and the whole conduct of the study. Difficulties arose when data was to be collected in times of turbulence to suit the purpose of the present study. Some people interviewed expressed their concerns and dissatisfaction with the changes, rather than providing the necessary information for the study being undertaken. To complicate matters, some staff members seemed to be very confused about whether the changes were the effect of government policy or internal reorganisation.

Conducting qualitative research requires the researcher to have a reasonable degree of patience. At UT, for example, during the interviews, some staff complained about their dissatisfaction with the process of appointing the new Rektor. At UNE, some frankly expressed their "anger" with the on-going internal reorganisation and government restructuring of universities. Similar concerns also arose at MU, particularly related to decreasing resources for distance teaching. I had to listen carefully to the staff feelings prior to attempting to obtain the information needed for the purpose of the research. So qualitative research involves more work of art than rigid procedures of "hard" sciences, such as physics or chemistry.

### Conduct of the Study

The conduct of the study required a systematic procedure to be followed. The first stage was preliminary documentary analysis in order to familiarise and allow the researcher to obtain a preconceived idea on the institutions under study. The second stage was fieldwork, which included observation, interviewing and further gathering and analysis of documents. During the observation, data concerning the actual operations and administrative processes of the institutions were gathered. Observational and interview records were maintained for further analysis. A variety of interviewing techniques were used, mostly semi-structured and unstructured. This was to enable the researcher to obtain the required data with a broad perspective. The fieldwork also gave the researcher access to a large number of institutional documents unavailable in Koleksi Perpustakaan Universitas Terbuka

university libraries. The multiple-case design was used so that similar procedures could be replicated in the three institutions being studied. There was a variety of focus in investigating the institutions because each had different characteristics.

There were a number of problems in operating within the tight schedules of the present study. For instance, visits to institutions could only be conducted at the convenience of those to be interviewed and it was not always easy to agree upon an appropriate schedule. Yet plans had to be developed as a guide to the conduct of the study, although they needed to be flexible to suit various needs of the researcher and subjects of the study.

The UT case study involved two visits (October - November 1990 and November - December 1993, respectively), in which fieldwork was undertaken and documents were gathered. Most of the formal interviews took place during the second visit (See: Appendix 1 for List of Interviewees at UT). However, I have been able to receive newsletters and some other documents regularly. I also visited two learning-resource units in Central Java and Yogyakarta. The UT was chosen as the first case study as this is the institution with which I am most familiar, having been a staff member there since 1985.

The research for the UNE case study was conducted primarily during the first semester of 1991. However, because of significant changes which have taken place at UNE, in the first semester of 1993 it was necessary to collect additional data. Since the late 1980s, the UNE has undergone major changes -- amalgamation with nearby colleges of advanced education as required by DEET (Department of Education, Koleksi Perpustakaan Universitas Terbuka



Employment and Training), internal reorganisation to meet the needs of a network university, and more recently the process of de-amalgamation. The UNE, where I have spent most of my time from early 1990 to early 1994, served as the trial for the other case studies so that difficulties in data collection and analyses and conduct of the study could be identified, and possible problems could be anticipated and overcome. In June 1993, I also visited another dual-mode university in Australia, the University of Southern Queensland (USQ), to gain some idea of how it operates (See: Appendix 2 for List of Interviewees at UNE, and Appendix 3 for List of People Consulted at USQ).

The MU case study was conducted during the second semester of 1991. Most documents were gathered and analysed during that time. I was able to spend only three weeks from September through to October 1991 at MU, undertaking fieldwork, observation and interviews with various members of the University community (See: Appendix 4 for a List of Interviewees at MU). However, I have been able to receive MU periodicals regularly, to keep me up-to-date. Last, the full final report was written during 1993, although some drafts had been produced earlier.

## Concluding Remarks

Although there have been a number of case studies conducted in distance education, little research has been undertaken to critically analyse, compare and contrast dual-mode and single-mode universities. Moreover, most of the research has been purely descriptive, thus lacking analytical bite. Using case study and grounded theory as methodological approaches, this study attempts to investigate the nature of the two organisational modes of distance education, analyse their strengths and weaknesses and provide policy suggestions.

Three institutions, each of which has interesting individual features, were selected as major case studies. The UT represents the single-mode system, while UNE and MU represent the dual-mode model. The UT can be described as part of what Shale (1987) has called recent innovative developments in higher education, in which many countries have established their open universities following the successful UKOU experiment. As a new institution developed in a totally different context from its model's origin, the UT has confronted a number of problems related to cultural as well as economic constraints. With adjustments, however, it has so far survived and developed to suit the national needs.

The UNE and MU represent the dual-mode system. The UNE is the oldest major distance-education provider in Australia, and is also older than the other two. In terms of enrolment, although it is the smallest among the three, it is still the largest Australian provider. The "New England Model" has inspired a number of other dual-mode institutions. MU has been a major distance-education provider in New Zealand. It is

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larger than any Australian dual-mode university in terms of enrolment, and has practically no competition.

Case studies in education tend to draw from other disciplines for both theory and method (Merriam, 1990). For the purpose of the study, it is worthwhile to incorporate some of the ideas developed in the field of business management and organisation. For instance, theories about industrial cultures, organisational cultures and the idea of university as an enterprise will be used as a framework for analysis of distance-teaching universities to understand how they work. Nevertheless some caution is necessary as business organisations are different from universities.

Social institutions such as universities are always changing to cope with continued internal and external pressures. Such pressures may come from the academics, staff, students, the Government, the public and even overseas trends. New policies have to be made to accommodate these demands. Sometimes institutions change or renew themselves just for the sake of change, with no clear justification. The consequence of change is conflict, which is always present as universities include diverse members and sub-groups with different needs. So the present case studies also attempt to reveal these phenomena and, when it is possible, suggest ways to improve practices in the three institutions.

The three institutions are set in different contexts, with different philosophical bases, goals and expectations by the Government and the community which have helped to build them. Changes and restructuring of higher education within each context has also had significant impact on the ways they operate. So it is important to consider these broader

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developments in the national context as they also determine directions within the UT, UNE and MU. Despite the differences, institutions can learn from the experience of others. The UT can learn various aspects of teaching, management and organisation from the experience of the dual-mode system. At the national-policy level, Indonesia can learn from alternative ways of expanding access to tertiary education from countries such as Australia and New Zealand, particularly in developing dual-mode universities to accommodate increasing demand for places in state universities.

UNIVERSITAS TERBUKA



### Chapter 3

#### REVIEW OF RELEVANT LITERATURE AND RESEARCH IN UNIVERSITY DISTANCE EDUCATION

This chapter discusses the idea of the university, current trends towards mass higher education, the development of distance education in universities, concepts of distance education, and the management and organisation of distance education. It begins with the review of the idea of the contemporary university, arguing how the functions of universities have evolved from primarily teaching to include other functions of research and community services. These changes have had a significant impact on the way universities are governed. A more recent trend of transition from elite through mass to universal access in higher education is taking place in many countries in recent times, and distance education can make a significant contribution in achieving the transition to mass higher education. Distance education in universities has developed from extension departments in the 19th century through the integration of distance and on-campus teaching to the foundation of open universities in recent times.

Concepts of distance education are discussed in terms of recent issues in defining the field, and contemporary distance-education theories, such as theories of independent and autonomous learning, the theory of industrialisation, and theories of interaction and communication. The discussion of management and culture in distance-teaching universities concentrates on changes of approach in academic governance, from the bureaucratic, collegial, political and anarchic models, and more recently to an emphasis on the importance of

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cultures in academic organisation.

### Reviewing the Idea of the University

The classical writings on the idea of the university originated from the 19th century works of Cardinal Newman. Newman (1953:63) put forward the idea that "a university is a place of concourse, whither students come from every quarter for every kind of knowledge." In Newman's view, teaching was the prime function of a university. The concept was later developed by, among others, Flexner (1930), Jaspers (1965) and more recently Kerr (1977). Jaspers (1965:53), a German scholar, argues that the university is "simultaneously a professional school, a cultural centre and a research institute." The university fulfils these tasks within an institutional framework, requiring orderly administration and representing "an independent corporate whole with its own constitution" (Jaspers, 1965).

Perkin (1982) views the university as the accidental product of a uniquely divided and decentralised society. According to Perkin, "all civilized societies need institutions of higher learning to meet their need for esoteric knowledge and its keepers and practitioners" (1982:20). Historically, universities of the Western world grew spontaneously out of the cathedral and urban schools of the 11th century. Then the 12th century marked the development of the institutional form of universities of Parma, Bologna, Paris and Oxford. This was later followed by further establishments of the first institutionalised universities throughout Europe until the end of the 16th century (Perkin, 1984). The function of teaching

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or the dissemination of knowledge was historically, and to some extent is now, the dominant characteristic of the university mission.

Contemporary universities have become much more community oriented. Teather (1982a:15) points to two contrasting issues of the relations between the university and the community. First is the idea that a university will best serve the community by using its resources in research and scholarship in the fundamental disciplines and in the teaching of undergraduate and graduate students of high calibre. The second alternative calls for initiatives to open up more direct avenues of contact between universities and their local and regional communities. Service to the community has been inevitably added to one of the important missions of contemporary universities.

Earlier Ortega y Gasset (1944) argued that universities consist of professionalism and research. The medieval university did little research and was very closely associated with the Church. In contrast, the contemporary university has developed a wide range of activities, and has added the important function of research, apart from its major attention to teaching and the transmission of culture (Ortega y Gasset, 1944). The contemporary university embraces at least the functions of teaching, research, public service, and the achievement of democratic community (Perkins, 1973).

Organisationally, the university is one particular example of the most complex structures in modern society because its formal structure tends not to describe either actual power or responsibilities (Perkins, 1973). Perkins (1973) states that

the predicament of university organisation has arisen in part

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because of its conflicting missions. Modern universities have had to perform conflicting missions, but within the framework of an organisational design appropriate to its earliest mission, that is, teaching. The newer functions of the university demand organisational requirements that are significantly different from those necessary for teaching (Perkins, 1973).

University organisation has changed significantly to respond to these new requirements. Balderston (1975) asserts that the university has become a mixture of institution, enterprise, and agency, because it has assembled a large and confusing range of activities and operations, and because the major parties at interest want to view it in different ways: the faculty and students, as an institution; the trustees and administrators, as an enterprise; and the government sponsors, as an agency. So complex are the perspectives of managing modern universities that they result in conflicts of missions, interests and purposes. Contemporary universities require a different design of management and organisation to accommodate the interests of various groups of people.

University governance has changed even further. Kerr (1977:1) puts forward the idea of a multiversity, where the university, starting as a single community of masters and students, has turned into "a whole series of communities and activities held together by a common name, a common governing board, and related purposes." According to Kerr (1977:18), "the multiversity is an inconsistent institution," comprising several communities of students, humanists, scientists, professional schools, nonacademic personnel, and administrators. Its edges are fuzzy, reaching out to alumni,

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legislators, farmers, businessmen, who are all related to these communities (Kerr, 1977). The multiversity is a huge corporation with hundreds of thousands of students and staff in a number of locations. It offers tens of thousands of subjects and courses in various disciplines in its catalogues. The University of California system is a good example of a multiversity. It should be noted, however, that multiversity is not necessarily the model of the future, and many elite "Ivy League" universities, such as Harvard, Yale and Stanford in the United States, or Oxford and Cambridge in the United Kingdom, are single-campus universities without some of the functions of Kerr's multiversity.

The idea of the university has changed considerably in terms of access, functions and management systems in both developed and developing countries. In Australia, for instance, many institutions from the advanced education sector were recently upgraded to become universities, and teaching remains their major function. In Indonesia, the public are welcome to participate in developing private institutions. Unfortunately, only a few of these institutions have the necessary infrastructure and resources to be called a university. Many private institutions are more oriented towards profit-making than providing real education. In fact, although many universities have been created in both developed and developing countries in recent times, many of them do not function as expected.

Changes in the nature and concept of university teaching have been inevitable since the time when Newman put forward his ideas on the function of the university as a teaching institution in the 19th century. With the introduction of the

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concepts of open universities and distance learning, instruction can now be undertaken either in the classroom or at distance. While Newman's ideas are still relevant to conventional universities, they may necessarily be wholly inapplicable to universities teaching at a distance.

There is then the question whether a true university education can be achieved at a distance. Hanson (1984) argues that a growing awareness that learning, and not teaching, is the decisive factor in education, has brought support to distance education. Learning is focused on the learner, and the teacher's task is to mediate and facilitate rather than to instruct in the learning process. She emphasises the importance of interaction at the individual level in learning. While the basis of the teaching and learning process in a traditional university relies on face-to-face dialogue and use of the library, it is possible that constructive learning takes place in distance education through internalised dialogue. Learning involves dialogue or communication which can take place in the less immediate situation of distance teaching (Hanson, 1984).

Hanson (1984) also emphasises the importance of interaction, which assumes that all learning is based on conversations. In fact, in face-to-face teaching students may consider choosing to learn on their own, or at a distance, when they fail to understand the material. Finally, Hanson (1984:35) says: "If the background theory on which higher education at a distance is based includes the general assumption that real learning is primarily an individual activity attained only through an internalising process then there would seem to me to be more than adequate support for the

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belief that a true university education can be achieved at a distance" (1984:35). University teaching at a distance is different from its conventional counterpart in terms of instructional strategies and management requirements, rather than in quality and credibility.

#### From Elite through Mass to Universal Access to Higher Education

The term higher education covers a wide range of institutions at the post-school levels, such as two-year colleges, four-year colleges, comprehensive universities offering undergraduate and graduate degrees, and research universities (Brubacher, 1982). Each institution has a different emphasis on roles and functions. In a TAFE (Technical and Further Education) college in Australia, or community colleges in the United States and Canada, the orientation is more vocational and practical. Universities offer varied programs in a number of disciplines, degree and non-degree, from arts, social sciences, sciences, and applied sciences, as well as engineering. Universities with professional schools provide students with advanced skills in the professions, such as medicine, law and business. Those institutions with graduate schools emphasise the roles of research and scholarship. Despite differences in types and missions, higher-education institutions share similar functions, i.e., transmitting learning, expanding its limits and applying its results for public service (Brubacher, 1982).

Some confusion exists over the use of the terms higher, tertiary and post-secondary education. In Australia the term

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higher education generally refers to post-school degree-granting institutions, while tertiary education includes all forms of post-secondary education (Meek, 1991). However, the term tertiary education also is used in a similar sense to the term higher education in many comparable countries (Harman, 1988). For the purpose of this discussion, these terms will be used interchangeably to refer to post-school education.

Expansion of higher education has been a major international trend during the second half of this century, particularly in industrialised countries. While in the 1950s universities were attended by a small educational "elite," by the 1980s most of the industrialised countries could claim that more than a quarter, and in the United States even more than a half, of the corresponding age-group enrolled in tertiary institutions (Teichler, 1988). For many people in industrialised countries, higher education has become a basic right rather than being seen as a privilege. According to Teichler (1988), the driving forces behind the expansion in this sector can be attributed to the advancement of science, human capital theory for the need of qualified manpower, social demand and economic growth. The actual contribution of each of these factors varies from one country to another.

Growth in the higher-education sector has intensified pressure to shift from elite to mass higher education and subsequently to universal access (Trow, 1974). This transition poses a variety of problems and has an impact on every form of activity and manifestation of higher education. According to Trow (1974), policies to allow expansion can be achieved by increasing the capacity of the elite universities, or by transforming elite systems into systems of mass higher

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education to perform a great variety of new functions. There are, however, limits to expansion because institutions cannot expand indefinitely, and thus development of non-elite systems is required (Trow, 1974).

Mass higher education differs fundamentally from elite higher education in areas such as the proportions of the age group enrolled, the functions of the system for the society, the curriculum, the entry requirements, the student's career, the degree of student homogeneity, the character of academic standards, the size of institutions, the forms of instruction, the relationships between students and faculty, the patterns of institutional administration and governance, and the principles of selecting staff (Trow, 1974). Expansion has led to diversity, because modern systems of higher education must take into account the broad diversity of student interests and social functions (Trow, 1976). Despite government effort in many countries to standardise, diversity now exists to a significant extent.

A similar trend of expansion has also taken place in many developing countries, even though as high a rate of participation as that achieved by the industrialised countries is yet to be realised. Higher-education enrolments in most parts of the world have increased considerably during the past three or four decades (See: Table 1 below).

Table 1  
World Higher-Education Enrolment Ratio  
in Various Regions (in Per Cent of Age Group)

Region	1950	1960	1970	1980	1987
Africa	0.8	0.7	1.5	3.5	4.3
Asia	1.5	2.6	3.5	5.6	7.3
Latin America	1.6	3.0	6.3	13.5	16.9
Europe	2.2	10.3	17.3	22.1	25.2
Northern America	7.2	28.9	45.4	54.3	63.8
Developing Countries	N/A	2.1	3.0	5.7	7.4
Developed Countries	N/A	13.5	23.4	30.3	34.1
World	2.8	5.3	8.5	11.5	12.6

N/A = Not Available

Source: Psacharopoulos, 1991:3, based on UNESCO Statistical Yearbook 1980, 1989

However, in developing countries particularly, public resources for the higher-education sector have not increased at a comparable level with the increase of enrolments, because of the strong demands on public resources from other sectors of education as well as from other sectors of public services. In many developing countries, ministries of education have been able to persuade the government to allocate more resources to education. Yet generally this is not sufficient because of the escalating demand in this sector. Consequently, the financing of higher education in the future will have to rely to a much greater extent on private resources and user contributions (Psacharopoulos, 1991). If this is to happen, it means a bleak future for developing nations as the average income of the population is not sufficient to meet the cost for user-pays

university education.

The developing countries thus must look for alternatives, such as distance education, to provide more accessible university education in terms of cost and equality of opportunity. Teaching at a distance is an expensive endeavour; however, considering the large potential number of students in developing countries, the cost can be spread over large numbers of students. Another alternative is to operate a consortium or a collaborative scheme among institutions to offer distance-education programs, in which programs can be developed using available resources. The ideas of open universities and distance learning thus have become important components of national and international strategies to educate large numbers of people and subsequently to move towards achievement of universal access to tertiary education. Both are playing important roles in the transition to mass higher education.

#### Development of Distance Education in Universities

Distance education started in the 1840s in England when correspondence instruction was introduced to teach shorthand (Glatter and Wedell, 1971; Teather and McMechan, 1980; Holmberg, 1986). It was initiated by an enterprising private sector which realised that the cheap postal service could make possible tuition to home-based students (Rumble, 1989). Correspondence conveyed by post was initially the major medium of delivery.

The development of modern communications media have had a major impact on distance-education delivery methods -- first radio (in the 1940s), then television (in the 1950s and 1960s),

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followed by audio and video cassettes and computers in the 1970s and 1980s (Perry and Rumble, 1987). Contemporary distance education employs a variety of media and technology to reach people unable to gain access to classroom-based learning. Nowadays distance education has become more acceptable as a mode of learning and teaching, and has been developed for almost all levels of education, from early childhood to advanced university degrees (Fitzpatrick, 1983; Harley, 1985; Hosie, 1988).

The development of distance education at the university level dates back to the late 1830s when the University of London was created to hold examinations and confer degrees while the teaching was done by other institutions (Glatter and Wedell, 1971). Students in the United Kingdom and overseas could sit for examination for the University of London external degrees (Kaye, 1981). Some of the oldest universities in New Zealand followed the London model. During the last quarter of the 19th century, universities in the United States offered extension programs as a means of reaching individuals who were unable to attend on-campus classes. This was initiated by the Illinois Wesleyan College in the 1870s and then the University of Chicago in the 1890s (Holmberg, 1986; Rumble, 1989).

In the early 20th century, further development of correspondence education occurred in Sweden when distance education emerged from the idea of helping an individual student in foreign-language learning (Holmberg, 1986). At about the same time, in Australia guided correspondence study was introduced in 1911 at the University of Queensland (UQ), following its founding Act in 1909, to meet the need of students, particularly school teachers living in rural areas



and wishing to follow in-service programs to upgrade their qualifications (Store and Chick, 1984). Soon after that, the University of Western Australia (UWA) was founded in 1911 as a conventional university, but offering some external programs to reach remote students.

In Australasia, distance education has continued to develop substantially since the 1950s. With the expansion of the Australian tertiary-education sector through the creation of the Colleges of Advanced Education (CAEs) throughout the 1960s and 1970s, the external mode of study was also expanded in this sector. Institutions in the university and CAE sectors had been developed to provide both on- and off-campus programs following the University of New England (UNE) pattern during that period of time. The TAFE sector, which was more recently created in Australia, also has been involved in distance education. In New Zealand, Massey University also was developed in the 1960s following the "New England" model.

In the 1970s and 1980s, following the foundation of the UKOU, open-university education spread rapidly to most countries of the world, irrespective of economic capacities and political ideologies. Many countries in Latin America, Asia as well as Europe created open universities during that period. More institutions have been proposed in countries such as Poland, France, Turkey and Nigeria (Shale, 1987). Bangladesh Open University recently has been created. With the support of international agencies, such as the World Bank, many countries have considered distance education as a viable way to expand access to education. A comparative study of international distance education carried out at the Fernuniversitat in

(Holmberg, 1989). Table 2 lists the main open universities created up to 1986.

Table 2  
The Open Universities

Institution	Date Founded	Approximate Enrolment
Open University, the United Kingdom	1969	150,000
Universidad Nacional de Education, Spain	1972	83,000
Fernuniversitat, Germany	1974	37,000
Everyman's University, Israel	1974	12,000
Allama Iqbal Open University, Pakistan	1974	67,000
Athabasca University, Canada	1975	10,000
Universidad Nacional Abierta, Venezuela	1977	29,000
Universidad Estatal a Distancia, Costa Rica	1977	11,000
Sukhothai Thammathirat Open University, Thailand	1978	200,000
Central Radio and Television University, China	1978	1,000,000
Open University of Sri Lanka	1981	15,000
Open Universiteit, Netherlands	1981	33,000
Andra Pradesh Open University, India	1982	41,000
Korean Air and Correspondence University	1982	300,000
University of the Air, Japan	1983	22,000
Universitas Terbuka, Indonesia	1984	70,000
Indira Gandhi National Open University, India	1986	30,000
National Open University of Taiwan	1986	48,000
Al-Quds Open University, Jordan	1986	N/A
Universidade Aberta, Portugal	1986	3,800

N/A = Not Available

Source: Shale, 1987:8; Granger, 1990:46.

In recent times we have seen the foundation of regional bodies concerned with distance education, such as the Australian and South Pacific External Studies Association (ASPESA), which was retitled in 1993 to become Open and Distance Learning Association of Australia (ODLAA); the Asian Association of Open Universities (AAOU); and the European Association of Distance Teaching Universities (EADTU). The international body was in fact founded in 1922 as International Council for Correspondence Education, and in 1982 it was retitled to become International Council for Distance Education (ICDE) during its conference in Vancouver, Canada. These developments strengthened international networks of collaboration among distance-education institutions and practitioners.

#### Recent Issues in Defining Distance Education

According to Keegan (1986), distance education is a generic term that includes a range of teaching-learning strategies referred to as correspondence education in the United Kingdom; home or independent study in the United States; external studies in Australia; and distance teaching by the UKOU. It is referred to as "tele-enseignement" in French; "Fernstudium/Fernunterricht" in German; "educacion a distancia" in Spanish and "teleducacao" in Portuguese. Emphasising the interest in this type of education in recent times, Wedemeyer asserts: "Whether called fernstudium, teletuition, telemathics, or education at a distance, the phenomenon of teachers linked with learners via various media over vast distances is a persistent and growing characteristic of education in the

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twentieth century" (1981:48).

Definitions of distance education are important in understanding its various dimensions. Wedemeyer (1981) defines education at a distance as the teaching and learning of knowledge via various methods used because teachers and learners are at a distance from each other. The two parties communicate by means of media, regardless of the limitations of space and time, social and economic inequalities among learners, geographic isolation and cultural differences. Wedemeyer has highlighted two important elements, i.e., "distance" separating teachers and learners, and the "use of media" for communication. Perry and Rumble (1987) also emphasise distance education in terms of the separation of the teacher and the learner and the use of two-way communication media, such as postal mail, telephone or telex, two-way radio, computer networks and interactive video discs.

Keegan (1986) put forward a comprehensively descriptive definition, following his extensive survey into the literature. According to Keegan, distance education is viewed as a form of education characterised by:

- the quasi-permanent separation of teacher and learner throughout the length of the learning process;
- the influence of an educational organisation both in the planning and preparation of learning materials and in the provision of student support services;
- the use of technical media: print, audio, video or computer, to unite teacher and learner;
- the provision of two-way communication so that the student may benefit from or even initiate dialogue;
- the quasi-permanent absence of the learning group throughout the length of the learning process (Keegan, 1986:49).

Two socio-cultural determinants are added by Keegan as necessary pre-conditions and consequences of distance education, i.e., the presence of more industrialised form of education, and the individualisation of institutional learning (Keegan, 1986).

Keegan's definition, particularly the last two characteristics, has sparked further debate. Some commentators have argued that such a definition has been too restrictive in its view and too descriptive in its orientation to the past practices of distance education, as distance education has become more technologically complex (Garrison and Shale, 1987).

A recent attempt at redefinition has been offered by Rumble (1989a). He raises some problematic points to be addressed. "Should any definition admit an element of face-to-face teaching? Do students have to be separated from the educational institution sponsoring the course, as well as from their teacher? Provided that the meetings take place in the absence of a teacher, can students meet in groups? Does distance education necessarily imply use of technical or mass media? Is the provision of two-way communication necessary? Is distance education an industrialised form of education? Does it involve a privatisation of the learning process? Is an institutional framework necessary?" (Rumble, 1989a:18). As a response to these issues, Rumble (1989a:19) proposes the following definition of distance education:



1. In any distance education process there must be a teacher, student(s), a course or curriculum, and a contract acknowledging the teaching-learning roles.
2. Distance education is a method of education in which the learner is physically separate from the teacher.
3. In distance education learners are physically separated from the institution that sponsors the instruction.
4. The teaching/learning contract requires that the student be taught, assessed, given guidance and prepared for examinations that may or may not be conducted by the institution.
5. Where distance teaching materials are provided to learners, they are often structured in ways that facilitate learning at a distance.

The purpose of a definition is to summarise and clarify rather than complicate. Yet there is still confusion and debate about the terminology of distance education. There have been agreements and disagreements among commentators and theorists on what constitutes distance education. There are complaints about the lack of unanimity on the terminology used in distance education (Keegan, 1980). Consequently, it is argued, theory is needed. By theory is meant the summary and synthesis of what is known in the field, to make it possible for us to speak with a common vocabulary (Moore, 1991). Good theory is based on empirical research. Moore (1990) argues that more research through the generation of hypotheses and empirical testing is needed for further development of distance education. Once that is achieved, we can be more confident in our actions and decisions in the field.

There also remains a debate as to whether or not distance education deserves the status of a discipline. Holmberg (1986a, 1989a) has been among those supporters of the case for the study of distance education to be considered as a

area of research and academic teaching and thus deserves discipline status. Others, such as Rumble (1988), however, have put forward the idea that there are no grounds for seeing distance education as a separate specialist domain of knowledge, as there is a lack of "a real disciplinary culture that is distinct from education as a whole." In the same vein, Tight (1988) believes that it is more appropriate to think of distance education as a set of methods and practices, rather than as a discipline.

The debate about distance education enriches the literature of distance education and such debate is important if distance education is to flourish and further develop. But a more important issue is what distance education can do to help people gain access to education, and help governments in educational innovation. Clearly distance education can serve different communities and client groups well and can have a key role in national and international educational development. It is now regarded as an integral and central part of educational provision in many countries (Rumble, 1989).

### Theories of Distance Education

Since the founding of the UKOU, there has been extensive publication of literature and research reports, theoretical as well as practical, in distance education. A number of journals in the field have also been published, such as "Teaching at a Distance" (which has been renamed "Open Learning"), "Distance Education," "The Journal of Distance Education," "The American Journal of Distance Education," "Research in Distance Education," and other publications related to activities in

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specific institutions.

However, some scholars have earlier argued that there is a serious lack of theory in distance education (See: Perraton, 1983). The lack of theory has resulted in the lack of guidance on research to be undertaken and the lack of confidence in planning and decision making in the field (Sewart, Keegan and Holmberg, 1983). There even has been unnecessarily lengthy debate about defining what distance education is.

Some authors have proposed ways and methods of analysing distance education. Kaye (1981), for instance, proposes systems analysis of distance education by division into four subsystems. The course subsystem is concerned with the creation, production and distribution of the learning materials. The student subsystem deals with enrolment, support and assessment of students and their learning needs. The regulatory subsystem encompasses organisation and decision making, while the logistical subsystem is concerned with resource allocation.

Perraton (1983) argues that if we are to build a theory for distance education, its basis will depend on existing theories of education and communication rather than construction of brand-new components. In his opinion, distance education has developed on the grounds that it expands education, it encourages dialogue, it employs a particular set of methods, and there are strong arguments to support the guiding ideas (Perraton, 1983). He explores the possibility of developing a theory that will help with the practice of distance education by analysing three related systems of teaching, administration and assessment, rather than seeking a single theory of distance education (Perraton, 1987).

Other authors, such as Sewart, Keegan and Holmberg (1983) classify the theoretical positions from which the concept of distance education is developed, i.e., theories of autonomy and independence, theory of industrialisation and theories of interaction and communication. These are discussed below.

### Theories of Autonomous and Independent Study

Theories of autonomy and independence are based on the works of theorists such as Delling, Wedemeyer and Moore (Keegan, 1983). Delling emphasises the autonomy and independence of the learner, and thus reduces the role of the teacher and the institution. Wedemeyer (1971) put forward the idea that independent study is an effort to organise instruction so that greater freedom in learning is possible for learners. Wedemeyer (1971) said that the philosophy underlying independent study emphasised a democratic social ideal that nobody should be denied the opportunity to learn for any reason, such as geographical isolation, social status, poor health, being institutionalised, or otherwise being unable to attend the institution's special environment for learning.

Wedemeyer (1971:550) defined independent study as consisting of "teaching-learning arrangements in which teachers and learners carry out their essential tasks and responsibilities apart from one another, communicating in a variety of ways for the purposes of freeing internal learners from inappropriate class pacing or patterns, of providing external learners with opportunities to continue learning in their own environments, and of developing in all learners the capacity to carry on self-directed learning." Learner

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self-direction is an important component of independent learning, which is applicable to both classroom and distance students.

Wedemeyer (1981) has classified three major types of non-traditional learning programs that are distinctive from one another: distance, independent and open learning. Distance learning is a phenomenon in which teachers and learners are linked via various media over vast distances. In an independent-learning environment, learners have varying degrees of freedom in the self-determination of goals and activities, and in starting, stopping and pacing individualised learning programs (Wedemeyer, 1981). Open learning ensures "a process of learning that is not enclosed or encumbered by barriers, that is accessible and available, not confined or concealed, and that implies a continuum of access and opportunity" (Wedemeyer, 1981:61).

Similar thinking to that of Wedemeyer is put forward by Moore, who was once a student of Wedemeyer at the University of Wisconsin. Moore (1973) considers independent learning and teaching as an educational system in which the learner is autonomous and separated from the teacher by space and time, so that communication is mediated.

According to Moore, "contiguous" learning situations are to be differentiated from a "distant" learning environment. In the former, there is immediate physical proximity between the learner and the teacher as the teaching-learning process occurs. In the latter, the learner and the teacher are bridged by a variety of communication techniques. Distance is defined as "a function of individualization and dialogue" rather than measured in terms of physical proximity such as miles or

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minutes (Moore, 1973). Autonomous learners can turn to teachers for help in their learning tasks using media. The contrast between the non-autonomous and autonomous learners lies in the extent of direction given by the teacher. While the former requires the teacher to tell what is to be learnt, how it is to be learnt, and when it has been learnt, the latter needs no such direction (Moore, 1973). The teacher acts as a resource person rather than as a director for the autonomous learner.

Moore (1983) then talks about what Henri Dieuzeide has called a "Copernican Revolution" in education, a shift in educational thinking and research from the so-called "teacher-centred mentality" to the "pupil-centred approach." This has some bearings on the role of the teacher and the way we view learning. In the learner-centred approach, the role of the teacher is to provide an environment which is conducive to learning and enables access to a variety of learning resources. The genesis of interest in independent learning and the teaching of independent learners to some extent stems from this educational revolution, which might have provided Moore with the basis for formulating his theory of independent learning.

Moore (1983) views independent study as a generic term for educational transactions which comprise "distance" and "autonomy" as important components. He reaffirms his theory: "Independent study is any educational programme in which the learning programme occurs separate in time and place from the teaching programme, and in which the learner has an influence at least equal to the teacher in determining goals, resources and valuation decisions" (Moore, 1983:78). Distance teaching implies the physical separateness of learners and teachers, and

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interactions between them are conducted through the use of media. The learner's autonomy is viewed from the extent to which the learner in an educational program has control over the selection of objectives, resources, procedures and the evaluation design (Moore, 1983).

In his recent work, Moore (1990) puts forward the idea that distance education can be conceived of as comprising the elements of learner independence (autonomy), interaction between learner and instructor (dialogue), and certain characteristics of course design (structure). These theories have made a significant contribution to distance-education programs, many of which have been designed to meet the special needs of distance students learning independently through the course material developed following a particular design.

### Theory of Industrialisation

Peters, a German scholar, draws attention to the striking similarities between industrial structures and distance education. Most of his work, however, is written in German and so far there has been little attempt to translate it into English. One useful article in English can be found in a chapter of a book edited by Sewart, Keegan and Holmberg (1983). This article is an abridged translation of chapter three of his seminal work published in 1973 "Die didaktische Struktur des Fernunterrichts. Untersuchungen zu einer industrialisierten Form des Lehrens und Lernens" or "The didactic structure of distance education. Research into an industrialised form of teaching and learning" (Jevons, 1986). Jevons makes an analogy

icebergs. Chapters three and four of the book, which bear the titles "Comparative Interpretation" and "Educational Technological Interpretation" respectively, are considered to be the visible tip of the iceberg (Jevons, 1986).

Peters (1983) believes that conventional approaches to analysing distance education are insufficient. The underlying assumption of Peters' thesis rests with the thinking that industrialisation is the new symbol of development affecting human existence and activities. He calls for the use of concepts and principles derived from the theories of industrial production to interpret distance-education phenomenon, although the comparison is purely heuristic (Peters, 1983).

Peters' interpretation of distance teaching originates from his research work in the 1960s (Keegan, 1983; 1990). His theoretical presentation of distance teaching begins with a didactic analysis, in which distance teaching is analysed as a distinct field of educational endeavour. Peters adopts the structural analysis proposed by two German educational technologists who claim that all teaching-learning processes can be analysed in terms of six elements: aims, content, methods, choice of medium, and human and socio-cultural pre-requisites. Then, he presents his comparative interpretation of industrial production and distance teaching in terms of the following elements: rationalisation, division of labour, mechanisation, assembly line, mass production, preparatory work, change, objectification, concentration, and centralisation (Peters, 1983; Keegan, 1983; 1990).

From the point of view of industrial theory, distance education is seen as a rationalised method of providing knowledge which, as a result of applying industrial principles

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and the extensive use of technology, allows a large number of students to participate in university study simultaneously, regardless of their place of residence and occupation (Peters, 1983). His arguments have led to the conclusion that distance education is the most industrialised form of teaching and learning (Peters, 1989). He analyses distance study in the light of technology and industrial planning. Technology plays a significant role in the process of industrialisation in education. He believes that planning and technology will lead to educational success. So if we are to teach in the most industrialised form of education we must be ready to cope with the problems that the industrialisation brings (Keegan, 1990).

Peters (1989) holds that distance education is structurally different from traditional instruction. In contrast to conventional education which involves direct interaction, group learning, teacher-centred instruction and teacher-initiated organisation and delivery of instruction, distance study has obviously different characteristics, i.e., indirect interaction, highly individualised learning, course-material focus, and learner self-direction.

Peters' argument has not been without its critics, such as Ehmann, Rebel, Hamann, and the integrationist supporters (Keegan, 1990). Rebel and Hamann criticise the didactic analysis used by Peters on the grounds that the approach is inapplicable to distance education (Keegan, 1990). Ehmann (1981) considers Peters' theory in the light of the unsympathetic attitude of the world of learning to distance education and the commercial character of the distance education organisation at that time. According to Ehmann,

Peters' analysis had its value only in its time (Ehmann, 1981).  
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No theory in distance education has received as much attention and support as well as controversy as that of Peters. Responding to his critics, Peters sees them as misunderstanding his interpretation of distance study as an industrialised form of learning and teaching. He remarks that there is no evidence that people either want or are able to resist or stop the changes brought about by the process of industrialisation (Peters, 1989). The purpose of the comparative interpretation is to draw our attention, rather than to judge, the merits of the application of industrial structures to distance education (Peters, 1983).

Even though non-profit organisations such as distance-teaching universities may be likened to industrial institutions in some respects, they are obviously different in many other aspects. Universities have missions, goals, organisational cultures and structures that are not comparable with their industrial corporations counterparts. Caution thus should be taken when using an industrial approach to analysing distance-education institutions.

### Theories of Interaction and Communication

Theories of interaction and communication have been developed by Baath, Sewart and Holmberg (Keegan, 1983). Baath (1979) explores and analyses the possible application of a number of teaching models to correspondence teaching. He views correspondence education as a variety of distance education. He elaborates the teaching models in terms of the conceptions of learning and teaching, the design of the teaching material and the functions of two-way communication, which are central

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to correspondence education. Two-way communication can be either traditional using the postal system or one involving simultaneous contacts between teachers and students.

Baath's analysis leads him to two generalised conclusions. First, models with stricter control of learning towards fixed goals tend to imply a greater emphasis on the teaching material than on the two-way communication between student and teacher. Second, models with less control of learning towards fixed goals tend to make simultaneous communication between student and teacher more desirable. This communication takes the form of either face-to-face or telephone contacts (Baath, 1982). The models can be applied to correspondence teaching and they vary in the extent of their applicability.

In 1960, Holmberg introduced the term "guided didactic conversation." Holmberg (1967) argues that teaching by correspondence is a natural means of instruction, involving two-way communication between the teacher and the student, if they are at a distance from each other. The presence of two-way communication is essential to fill the distance between the teacher and the learner. Holmberg (1977) suggests that distance education includes both real and mediated communication processes. The purposes of the two-way communication are to motivate and facilitate students in learning and to provide feedback (Holmberg, 1981).

Holmberg (1983) believes that education is based on communication between teacher and student, and in most cases on peer-group interaction. He reviews research in elaborative processing of text, i.e., the interaction of the text content with the prior knowledge of the reader, and in the internalised conversations, i.e., conversational activity with more solitary

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activities such as private reasoning and silent reading. The elaborative processing of text, which is conducive to retention, and to internalised conversation, represents a useful learning strategy. Thinking along this line leads him to suggest that "guided didactic conversation" is likely to influence students' attitudes and achievements favourably. The basic assumption underlying that approach is that learning is primarily an individual activity and is attained through an internalising process (Holmberg, 1983).

The non-contiguous communication typical of distance education is seen as the instrument of a conversation-like interaction between the student and the tutor or distance education organisation (Holmberg, 1983). He holds that "distance education as a method of guided didactic conversation implies that the character of good distance education resembles that of a guided conversation aiming at learning and that the presence of the typical traits of such a conversation facilitates learning" (Holmberg, 1985:26).

Sewart emphasises the requirement for an interactive mode, which can hardly be met by the learning materials alone, however well they are developed, to meet the needs of students learning at a distance. An institution's supportive and advisory role is vital in addition to the provision of learning package (Keegan, 1990). Other advocates of the interaction and communication approach are the integrationists, such as Smith and Sheath of the UNE in Australia. According to the integrationists, a distance-education institution should provide independent learning packages and add compulsory provision for staff-student contacts and student group activities (Keegan, 1990).

In small-scale institutions, compulsory on-campus courses for off-campus students can be undertaken with little difficulty. There will be difficulties for institutions with large student enrolments to arrange teacher-student contacts on the main campus. For example, large-scale open universities will have problems in providing accommodation and adequate classrooms for the large number of students who come for the on-campus classes. Large-scale institutions must find alternatives to substitute for interaction, for instance, by encouraging students to get involved in study groups actively with minimum supervision by tutors or staff. Alternatively, face-to-face interaction between students and teachers may be undertaken in regional centres.

Daniel and Marquis (1979) draw our attention to keeping the balance between interaction and independence in distance learning. They observe that distance study emerges as a result of the long tradition of independent study, the developments in educational technology and the interest in open learning. This has led to the creation of new types of educational enterprises to fulfil economic and political needs in both industrial and developing countries.

Referring to the theory proposed by Pask that all learning is based on conversations, Daniel and Marquis (1979) hold that all learning involves interaction, that is, those activities where the student is in two-way contact with another person involving reactions and responses which are specific to the two party's requests or contributions. Interaction includes such things as counselling, tutoring and contacting students; teaching over interactive telecommunication; bringing students together into discussion groups; and engaging in residential

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gatherings. In contrast, the term "independence" is used to refer to those activities where there is no interaction as earlier defined. Independence comprises such things as studying written material; watching or listening to broadcasts; writing essays and assignments; working alone at a computer terminal; and conducting experiments, surveys and project work at home (Daniel and Marquis, 1979).

According to Daniel and Marquis (1979), the crucial issue of distance education is to maintain the balance between interaction and independence. In financial terms, for instance, independent activities have great possibilities in achieving substantial economies of scale; however, the costs of interactive activities tend to increase in proportion to the number of students. Other problems relate to the choice of content, especially whether it is based on authority or autonomy, suitability of activities to students, and the issue of whether to pace or not to pace (Daniel and Marquis, 1979). These are the major problems that distance education has to face. Analysing these problems leads them to conclude that it is important for remote learning systems to achieve a good mix between independent and interactive activities.

These theories provide a useful means of analysing distance education. Using this theoretical framework, it would be interesting to compare and contrast distance-teaching universities. Some questions arise whether the single-mode system is more industrially oriented than the dual-mode, whether interaction and communication is less dominant in the single-mode, or whether distance-teaching institutions of any kind demand students to be autonomous and independent in learning. These questions will be addressed later in this

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thesis.

### Organisation of Distance-Teaching Universities

Organising for distance education involves diverse systems in terms of management structure and instructional methods. A conceptual typology for distance-education organisation is necessary to help us in analysing the complexity of the system. Keegan and Rumble (1982) have developed a typology of distance teaching at the university level, distinguishing institutions into two general types, autonomous and mixed or hybrid. Further detailed varieties of organisational models are derived from these two basic types (Keegan, 1986; 1990).

Holmberg (1981a) classifies the organisational typology of university distance education into three categories. The first groups universities which exclusively enrol "distant" students and use distance study methods for all or most of their teaching. The second classifies extension departments of conventional universities providing distance study facilities. The third refers to specialised bodies outside the university providing courses and tuition for university degrees, and the role of the university being that of an examination board (Holmberg, 1981a:35).

Perry and Rumble (1987) also suggested a classification similar to that of Holmberg. First, there are single-mode institutions founded for the purpose of offering distance education only. Second, there are dual-mode institutions providing both conventional face-to-face education and also distance education. And third, there are consortia or groups of autonomous institutions (educational, publishing, Koleksi Perpustakaan Universitas Terbuka



broadcasting) which agree to combine to offer distance education. Most distance-education institutions fall into either of two categories, i.e., the single-mode and the dual-mode. There are a few examples of consortia, such as the Open Learning Agency (OLA) in British Columbia, Canada, and the Australian Open Learning Agency.

### Single-Mode System

The UKOU has been a major pioneering single-mode distance-teaching university, incorporating the use of print and broadcasting media for teaching distance students. The base on which the UKOU was created was a convergence of three major postwar educational trends: developments in the provision for adult education, the growth of educational broadcasting, and the political objective of promoting the spread of egalitarianism in education (Perry, 1976). A single-mode institution usually has developed on the argument that the conventional-university approach to operating a distance-education system is inadequate and that the requirements of distance students are likely to be better served if the institution is wholly dedicated to their needs (Rumble, 1986a).

Researchers have examined various aspects of single-mode institutions (Kaye and Rumble, 1981; Rumble and Harry, 1982). Kaye and Rumble (1981a) draw the essential features of open universities as follows. First, the curriculum is designed around a modular course structure or credit system. Second, the development and production of course materials involving a variety of media is highly centralised. Third, the learning

materials are suitable for independent study by students working at a distance. And fourth, face-to-face teaching is used to augment and support the other learning materials. A more recent study by Guiton (1992) has identified major characteristics of the single-mode system as follows: economies of scale and narrow academic profiles; course-team approaches to design and development of material; use of integrated multimedia for delivery; dependence on other institutions for the provision of student-support centres; employment of part-time tutors; and student confinement to a single-mode distance study.

Kaye (1981) has described some of the advantages of the single-mode institution. First, the teaching, assessment and accreditation functions are integrated. Second, the institution is totally committed to distance students; hence academic staff have no conflicts between loyalties to internal and external students. Such a climate creates strong motivation among staff to develop and enhance distance-teaching methods, free from the constraints of conventional teaching. Third, the institution is freer to devise educational programs for new target groups, and to explore to a maximum the potential of distance-education methods. And finally, the institution is also freer to choose teaching methods and media, curricula, course structure, assessment procedures and accreditation policies.

There are, however, limitations to the "freer" state of the art enjoyed by an open-university system. The UKOU faces problems of credibility and acceptability by the public to the extent that it escapes from the "traditional university system." There is a general feeling that many people tend to

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look down on graduates of the UKOU, compared to those graduates of traditional universities. In Indonesia's Universitas Terbuka (UT), recent high-school graduates enrolled in the UT are generally those denied access in traditional state universities. The public tend to think that UT students are those academically mediocre rather than exceptional.

There also is criticism on the idea of openness. Harris (1987) holds that the term contains paradoxes and contradictions. Harris (1987) coins the term "openness and closure" in distance education, arguing that an open university system, which has openness in one aspect, implies a closed system in another aspect. For instance, he talks about open access and occupational closure. The possession of educational qualifications can be seen from two contrasting points of views: access to better-paid occupations with more power and prestige, and exclusion from or closure to the occupations to non-graduates. Harris (1987:139) argues that "the effects of the procedures of distance education at the Open University seem to include strong tendencies towards conceptual closure."

According to Harris (1988), the concept of openness has evolved so that micro-political points of view should be considered. The micro-politics of openness should involve analyses of concrete practice at the every-day level, in interaction between people and in a variety of small-scale encounters (Harris, 1988).

The single-mode system is expensive to develop and requires a substantial student enrolment to be economically viable. An open university needs a significant amount of initial investment for infrastructure and the development of the teaching material. However, these costs can be spread over

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large numbers of students (Kaye and Rumble, 1981a). Despite the high capital investment, the average costs are generally lower than those found in conventional institutions, provided that student numbers are sufficiently high. Various studies have indicated that distance teaching can be cheaper than conventional teaching (Wagner, 1973, 1977; Muta and Sakamoto, 1989; Setijadi, 1987).

The single-mode system poses economic and management problems in those institutions with small enrolments. However, under tight management and administration, a small-scale operation, even with enrolment of fewer than 15,000 part-time students, can be cost-effective. Snowden and Daniel (1980) explore the conditions under which small systems can be cost-effective and suggest that tighter management than other educational enterprises is required. Four areas of management activities need special attention in small distance-education systems: planning, organising, leading and evaluating (Snowden and Daniel, 1980).

#### Dual-Mode System

Many distance-education programs in universities operate as a dual-mode system, in which a separate department is created to handle distance students. In a dual-mode institution, there are generally two main groups of students, i.e., those who study internally in the classroom, and those who study externally with a minimum of or without classroom attendance. These two different groups of students should theoretically receive comparable support services from the institution, even though in reality internal students have

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advantages in terms of easy access to various resources on campus.

Historically, the dual-mode approach was used to counter suspicion towards external studies as lowering the standards of educational provision. So it is argued that "parity of esteem" between internal and external teaching can be achieved by having the same staff teach and assess the two types of students. Both students also sit the same examinations. Despite differences in mode of study, external students gain the same awards as internal students.

In reality, the two types of students are substantially different in many respects. Internal students are generally younger and have come directly to the university from high school. External students tend on average to be older. They usually have much more in the way of life experiences, as well as work, family and other commitments. Many of them did not complete high school and have come to the university through a mature-age entry scheme. Many people consider external students as "second-rate," just as many people consider distance teaching as a way of providing a "second-chance" education. In the early days, the acceptable way of giving an opportunity to working adults to study in universities was through a distance-study scheme offered by conventional institutions.

According to Guiton (1992), the dual-mode system has the following features. First, curriculum content and assessment standards are identical for both internal and distance-study modes. Second, delivery, teaching and student-support systems may differ to meet the specific requirements of each mode.

Third, the same awards are given to students regardless of



study mode. The "New England" model, a dual-mode one which adopts an integration of internal and distance teaching, has additional characteristics as follows. Course preparation, delivery and teaching support are undertaken by the same staff. Academic staff are contractually bound to teach in either or both study modes. And students are enrolled, tutored and assessed within the academic unit offering the course.

The dual-mode system has some advantages which may not be shared by the single-mode institution. Referring to the New England model, Smith (1988) asserts that the dual-mode university has certain cohesiveness and underlying strength derived from the fact that academic staff are responsible for the total teaching-learning process, writing courses, using a combination of independent study materials and face-to-face tuition and assessing the students through assignments and examinations. The integrated-mode supporters emphasise the importance of maintaining parity of esteem of internal and external students since the same academic staff are responsible for teaching both internal and external students.

Other authors, such as Campion and Kelly (1988), support the idea of integrating internal and external teaching on the argument that this ensures maintenance of educational standards and that degrees obtained by external study are considered as having the same value in the work place as those obtained by on-campus study. A dual-mode system allows for a greater diversity of course offerings and gives the opportunity for academics to continue to work in a research-oriented environment. The fact that external students receive the same materials from the same lecturers who teach internal students ensures legitimacy and credibility of external studies (Rumble,

1986a).

There has, however, been criticism of the dual- or integrated-mode institution. The lack of time for course development is the main problem in dual-mode universities. In the case of Zambia, for instance, course materials for distance students have been poorly provided because little time is available for course development and there is a lack of training and experience among lecturers for the preparation of distance-study materials (Siaciwena, 1984). Dual-mode institutions also tend to spend limited resources for improving the quality of course materials and the large-scale development of a variety of media and technology for distance students, because such institutions also need to spend resources for internal students. It should be noted that some Australian dual-mode universities, including the University of New England, Deakin University and the University of Southern Queensland, have recently increased their use of media and technology for distance education, and are employing a more systematic approach to course development.

Australia is unlikely to have an open university as the United Kingdom has, since its history, its vast distances and a federal political system are likely to prevent a single, national open university being established (Evans and Nation, 1989). However, Australian dual-mode universities in the future may well consider creating new consortia to make distance-education programs more efficient. Recent restructuring in the provision of university distance education and open-learning initiatives in Australia have encouraged the formation of consortia. With only eight major providers of distance education, other institutions which have small

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enrolments and are interested in offering distance education have been encouraged to collaborate with major-provider institutions.

The purpose of creating consortia is to achieve efficiency and economies of scale. Referring to the provision of educational television in the United States, Niemeyer (1985) argues that some educational institutions have found it desirable to form regional, state-wide, or area consortia to deal with the distribution of educational material in order to cut costs and achieve a degree of consistency in granting credit for participation. Small providers have found that it is expensive to develop educational programs by themselves, and even more expensive to produce and distribute programs.

Although there are clear indications of economic benefits and increased efficiency likely to be achieved, not many consortia have been established to date. A good example of a consortium is the Open Learning Agency (OLA) in British Columbia, Canada, which involves a number of institutions combining to offer programs at a distance on a province-wide basis. A notorious example is the now-defunct University of Mid-America (UMA), which was based in Nebraska and was developed without any clear purpose (McNeil and Wall, 1983). Earlier studies conducted by Bynner (1985) indicated that one major reason for the failure of developing collaborative schemes among Australia and New Zealand universities in distance education was variations in organisational climate within each of the institutions. Konrad and Small (1986) suggest that the strength of any consortium lies in its commitment to perform specific tasks for member institutions which they have difficulty in carrying out independently.

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## Management and Academic Cultures

Research into the areas of management of distance education has been most neglected, and has been either non-analytical or narrowly focused on trivial questions (Murgatroyd and Woudstra, 1989). There is a lack of theoretical understanding to aid the gaining of necessary management skills and practices. Analytical studies of institutional effectiveness and performance indicators are needed to enrich the management literature of distance education (Murgatroyd and Woudstra, 1989). Such studies could be of significant value to the management practices of the institutions.

Rumble (1987) asserts that the distance-teaching universities represent a radical departure in the management and organisation of universities. Distance education has different ways of conducting teaching-learning processes from face-to-face education. Consequently, a distance-education institution requires a different approach in managing and organising instruction. In contrast to traditional education, where generally an individual teacher teaches, in distance education an institution teaches (Keegan, 1986). This has effects on all the educational activities including instructional delivery systems, student-support services, learning-resource development and students' learning strategies.

The use of organisational models, despite their oversimplification of realities, can be helpful in understanding complex institutions such as universities.

Theorists have proposed various models to analyse academic

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management or governance, such as the bureaucratic, collegial, political and anarchic models (Baldrige, 1971b; Rumble, 1986a; Paul, 1990).

The bureaucratic model stems from the work of sociologist Max Weber who considered bureaucracies as networks of social groups dedicated to achieving limited goals and organised for maximum efficiency (Baldrige, 1971b). In a bureaucratic organisation, the regulation of the system is based on the principle of "legal-rationality" rather than informal agreement. Herbert Stroup identified the characters of the bureaucratic organisation, among others, as follows. Competence is used as the criterion for appointment. Officials are appointed rather than elected. Rank is recognised and respected. Salaries are fixed and paid directly by the organisation. The career is exclusively within the organisation, while life style is centred on the organisation (Baldrige, 1971b).

Many bureaucratic elements exist in modern universities. For instance, universities have a well-defined, formal management hierarchy of department heads, faculty deans and vice-chancellors or presidents. Among these academic managers, there are bureaucratic authority relations, although these often are somewhat blurred and ambiguous. Academics are ranked in terms of salaries and responsibilities. The university has formal rules and policies that govern institutional work. The registry and other operational units may vividly exhibit the presence of the bureaucratic practice within higher-education institutions.



The bureaucratic paradigm has limitations in explaining university governance. Faculty claims to academic freedom and professional autonomy are direct challenges to the hierarchical authority of a bureaucratic institution (Paul, 1990). With a major emphasis on authority, the bureaucratic model fails to address the importance of power and influence in organisations. It explains much about the formal structure, but little about the processes which give dynamism to the structure. It fails to explain how organisations change over time and to adequately address the processes of policy formulation. Thus it lacks a comprehensive explanation about decision-making processes in the university (Baldrige, 1971b).

In practice, collegiality has been a key characteristic of the oldest universities such as Oxford and Cambridge for a long time, and there has been a move to analyse university governance anew using the collegial model. According to Baldrige (1971b), there were three major reasons for the changing approach. The first was the importance of the concept of "community" as introduced by Millet (1962). Emphasising the significance of functional specialisation, the collegial model assumes an organisation operates through a "dynamic of consensus" (Millet, 1962).

Second, there were differences, as the sociologist Talcott Parsons noted, between "official competence" derived from the bureaucracy and "technical competence" derived from ability to perform a given task (Baldrige, 1971b). Professionals hold authority on the basis of what they know and can do, rather than on their official positions. Third, people were searching for a "utopian prescription on how the educational process

should operate," because of the growing discontent with the

huge bureaucratic university (Baldrige, 1971b:6). In other words, the collegial model emphasises the professional autonomy of academics, and the need for consensus and democratic consultation in academic governance.

Various criticisms can be made of the collegial model. Baldrige (1971b) sees it more as an ideal projection rather than as a description of reality in university governance. He argues that there seems to be confusion between descriptive and normative phenomena, "whether the university is a collegium or it ought to be a collegium" (Baldrige, 1971b:6). In his view, the model fails to deal adequately with the problem of conflict, which is endemic in university governance.

Recognising the two models as having serious flaws, Baldrige (1971b; 1971a) introduced the political model as a substitute. According to Baldrige (1971b), what we see in modern academic governance are dynamic processes representing neither the rigid aspects of bureaucracy nor the calm elements of an academic collegium. We see student riots cripple the campus, professors form unions and strike, administrators defend their traditional positions, and external interest groups invade the campus. The university thus is best understood as a "politicised" institution, involving complex political acts.

Although the work of Baldrige was based mostly on the volatile circumstances of American university governance in the late 1960s and early 1970s, many of the ideas are relevant today. Conflicts between different major interests still take place in universities, involving students, academics, administrators, the government and the public which provide the funding. Nevertheless, the political model, as do the previous

two models, lacks the comprehensive explanation of how the university actually operates.

More recently the anarchic model was offered by March and Cohen who describe the university as "organized anarchy" (Paul, 1990). The model assumes that goals are vague and diffuse in universities. In the anarchic model, authority is eroded by external loyalties, and individual autonomy is emphasised. There is a plurality of values that makes it difficult for managers to identify unambiguous goals or find ways of achieving them. Influence is based on expertise (Rumble, 1986a). It is necessary for management to secure certain minimal conditions for organisational survival and flexibility.

A major criticism of the anarchic model is that it concentrates primarily on the management of the academic sector and on faculty governance (Paul, 1990), but modern universities are far more complex than that, involving student union interests, support staff, external donors and the government. Again, there is a lack of inclusive interpretation of university governance.

These models nevertheless have provided perspectives from which further analysis of the management of distance-teaching universities may be undertaken. Using these models, comparison and contrast between the single-mode and dual-mode distance-teaching university can be made. For instance, some questions arise whether open universities exhibit a more bureaucratic character than dual-mode institutions, and the extent to which other characteristics exist in single-mode institutions, in contrast to the dual-mode system. These issues will also be discussed later in the thesis.

increasingly important. The work of Burton Clark (1983), for instance, examines cross-national comparisons of the higher-education system in terms of academic organisation. From the sociological perspective, Clark (1983) discusses the division of academic labour, academic beliefs, support structure for academics, distribution of authority and the way in which change takes place. His study focuses on the roles of internal interest groups, and concludes that the conflict of social values in higher education will require considerable adjustments. Clark's analysis of academic organisation concentrates on work (the way tasks are conceived and arranged), belief (the primary norms and values in the system) and authority (the distribution of legitimate power throughout the system). Clark (1983) develops the theme that academic cultures are associated with the cultures of the discipline, the enterprise, the profession and the system.

In Australia, one example of the study of complex organisational cultures has been undertaken by Meek (1984), who examines the relationship between the internal structure of a rural college of advanced education (CAE) and the structure of the environment in which it is located. Meek (1984) argues that the structure, function and character of any complex organisation are influenced by numerous social, political, economic and cultural factors, as organisations do not develop in isolation from the wider social setting. In his view, institutional culture and change take place within the context of environmental and historical influences.

A more recent organisational theorist, Bergquist (1992), asserts that it has become increasingly useful to describe organisations in cultural terms. He identifies four main

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cultures, i.e., collegial, managerial, developmental and negotiating, that are pertinent to academic institutions. An important premise of Bergquist's theory is its emphasis on the value of mixture of these cultures. He argues that academic institutions tend to embrace one of these four cultures, but that the other three are always present and interact with the dominant one (Bergquist, 1992). All four cultures exist in virtually every academic institution. He draws attention to the similarity of his ideas to the work of Robert Birnbaum (1988) on four institutional types of collegiate organisations, i.e., collegial, bureaucratic, anarchic and developmental.

The four distinct cultures have their own meanings, values, assumptions and conceptions of institutional purposes. For a better understanding of Bergquist's ideas, the following summary is useful. The collegial culture finds meaning primarily in the disciplines represented by the faculty in the institution. It values faculty research and scholarship and the quasi-political governance processes of the faculty. It holds assumptions about the dominance of rationality in the institution. It conceives of the institution's enterprise as the generation, interpretation, and dissemination of knowledge and as the development of specific values and qualities of character among young students who are future leaders of the society.

The managerial culture finds meaning primarily in the organisation, implementation, and evaluation of work that is directed toward specified goals and purposes. It values fiscal responsibility as effective supervisory skills, and holds assumptions about the capacity of the institution to define and measure its goals and objectives clearly. It conceives of the

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institution's enterprise as the inculcation of specific knowledge, skills, and attitudes in students so that they might become successful and responsible citizens.

The developmental culture finds meaning primarily in the creation of programs and activities furthering the personal and professional growth of all members of the collegiate community. It values personal openness and service to others, as well as systematic institutional research and curricular planning. It holds assumptions about the inherent desire of all people to attain their own personal maturation, while helping others in the institution become more mature. It conceives of the institution's enterprise as the encouragement of potential for cognitive, affective, and behavioural maturation among all students, faculty, administrators and staff.

The negotiating culture finds meaning primarily in the establishment of equitable and egalitarian policies and procedures for the distribution of resources and benefits in the institution. It values confrontation and fair bargaining among constituencies, particularly management and faculty or staff, with vested interests that are in opposition. It holds assumptions about the ultimate role of power and the frequent need for outside mediation in a viable collegiate institution. It conceives of the institution's enterprise as either undesirable promulgation of existing social attitudes and structures or the establishment of new and more liberating social attitudes and structures (Bergquist, 1992:4-6).

Further questions arise as regards distance-teaching universities. Do they embrace these cultures? Which culture is dominant? How do the rest of the cultures interact with the

single-mode university in terms of these organisational cultures? Do they adopt other cultures, such as industrial cultures, rather than just academic cultures? And to what degree are other cultures present? This framework of organisational cultures will be utilised in analysing distance-teaching universities.

### Concluding Remarks

Most of the literature in higher and university education has dealt with conventional institutions, although there has been growing amount of publication about university distance education recently. Distance education has been addressed separately from the viewpoint of conventional teaching. This may indicate that many of the problems faced by distance education may be different from those of conventional education, and that distance teaching may be a distinctive field. Although distance education is not regarded as a separate discipline in its own right, it is possible that in the future it will emerge as a distinct interdisciplinary field of study, involving the use of theories and approaches drawn from studies of conventional higher education, and from business and industrial management.

The discussion on university education has prompted further questions as to whether the functions and goals of conventional education are relevant to distance education. The basic idea of a university is that it serves the functions of teaching, research and community service, and teaching remains the central important function of universities. Universities,

whether they are of a conventional type or of a

non-conventional type such as open universities, primarily share similar functions and missions even though they require different teaching strategies and management systems. Like their conventional counterparts, research and community services are also some of the functions performed by open universities. Instructional technology or instructional industrialism, as some call it, has changed the way teaching and learning is conducted and has made possible various innovations in distance education.

The expansion in distance education implies a further question concerning the definition of what a university is, and changes in the collegiate nature of academic organisation. Dissemination of knowledge through teaching a large number of students to achieve efficiency is the primary function of most open universities. There are claims that research and community service are given less attention in open universities. This is not always true since the UKOU offers in-residence postgraduate courses, and gives opportunities for the academic staff to be involved in research in various academic disciplines. The research roles of many universities in developed countries are under some threat as government funds for research are decreasing or becoming more competitive to attract. In developing countries, the situation is more dismal, as there are inadequate facilities for research, such as well-equipped laboratories and good libraries.

Educational broadcasting can have a positive impact on the community. Many people, who are not formally enrolled in courses offered by distance-teaching universities, have access to course material through videos, television and radio broadcast. They can buy printed educational material published

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by distance-teaching universities in the market. If this phenomenon, which has started to take place in many countries, including in Australia, Indonesia and New Zealand, can be seen as a community service, many distance-teaching universities obviously perform that function.

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## Chapter 4

### THE PROVISION OF DISTANCE EDUCATION AT THE HIGHER-EDUCATION LEVEL IN INDONESIA, AUSTRALIA AND NEW ZEALAND

The three countries under study clearly have different systems of higher education because of different national priorities and public demands. The discussion of each country concentrates on the development of higher education, on recent reform in higher education, on distance education in higher education, and on the impact of recent reform on distance education. Coming first is the discussion of Indonesia, whose system and cultures I understand best, followed by the discussion of Australian and New Zealand systems. It is argued that each country has different approaches to the provision of distance education in universities, and there is a possibility, particularly for Indonesia, to learn from the Australian and New Zealand experience.

#### INDONESIA

##### Development of Higher Education

Although university education in a Western sense is relatively young in Indonesia, some sort of tertiary training was introduced during the first quarter of the 19th century (Junge, 1973). In the 1850s an advanced secondary medical school for training native doctors in Western medical practice was founded in the capital city of Batavia (now known as Jakarta). In the 1910s a medical school offering an eight-year course was opened in Surabaya, East Java, to train local

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physicians needed for local plantations (Donosepoetro, 1983). The period from the 1920s until the 1940s was marked by expansion of colonial Indonesian higher education, in which six institutions were brought into being: the College of Engineering in Bandung; Colleges of Law, Medicine and Arts in Jakarta; the School of Medicine and Dentistry in Surabaya; and the Agricultural Higher Education in Bogor (Atmakusuma et al., 1974). At that time, higher-education institutions were more like independent and separate colleges rather than components of a unified university system. It was from these institutions that some of the early contemporary Indonesian universities grew.

One motive for the expansion was the "ethical policy," a belief of some Dutch people that there was "a moral duty of the Netherlands toward people of the Indies" (Thomas, 1973). This had become the official colonial stance in the early 1900s. However, most of the students admitted to tertiary institutions were of Dutch and Eurasian origins and only a very small percentage of Indonesians was permitted to study. Higher education was elitist and institutions were established to meet the colonial interests. Before 1945, there were only approximately 3,000 native Indonesians, out of a 65 million population, who were enrolled in higher education, and the number of graduates never reached 2,000 (MOEC -- Ministry of Education and Culture, 1986a).

During the Japanese occupation from 1942 to 1945, all formal education came to a halt. Tertiary institutions were closed, and only some of them were reactivated immediately following the War. Some institutions were upgraded and changed names with an appropriate Japanese title, while some others

were never reopened (Thomas, 1973). As with other colonial powers, the Japanese made use of the institutions to satisfy their own political and social interests. For instance, the medical and technological facilities were used to produce physicians and engineers needed for winning the war and supporting the Co-Prosperity plan by the Japanese (Thomas, 1973).

The independent Republic's higher-education system began with the establishment of the first two universities, i.e., Universitas Gajah Mada (UGM) in Yogyakarta in 1949 and Universitas Indonesia (UI) in Jakarta in 1950. Both are considered to constitute the origins of modern Indonesian university education, and there are interesting nationalistic features associated with the two universities. Since its inception, being the first university "established by national initiative in revolutionary time," UGM decided to use the national language (Bahasa Indonesia) as the medium of instruction, despite considerable difficulties (Cummings and Kasenda, 1989). The argument to support the use of Bahasa Indonesia was that nationalistic orientation could contribute to national development.

UI was described by some people as "part of the colonial heritage," as it was founded from the elements of the former Dutch institutions, and in its early operation many of the teaching staff were Dutch and so was the academic tradition. A year after its establishment, however, the UI followed suit to use Bahasa Indonesia and the use of Dutch was forbidden, although English was permitted for use by some foreign professors (Cummings and Kasenda, 1989). Despite the early difficulties of operation due to the lack of infrastructure and

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facilities, the two institutions were able to initiate an Indonesian system of higher education with national values, philosophies, cultures and tradition.

Because of political unrest in the middle of the 1950s, the Indonesian instructional staff were left on their own after the exodus of the Dutch educators (MOEC, 1986a). The Dutch influence was gradually removed, which could be understood from at least two standpoints. First, pressures intensified to Indonesianise the system. Second, as noted by Altbach (1989), the weak and elitist colonial higher-education infrastructure made it easier for Indonesia to break with the Dutch colonial patterns. This paved the way for the introduction of different systems other than Dutch and enabled the sending of Indonesian academic staff abroad for advanced training.

In the 1960s, many provincial governments demanded their own universities because of the increasing need for democratisation of education and to provide for better socio-economic prospects for their people (Atmakusuma, 1974). So the 1960s saw the development of a number of provincial institutions. Thus the number of universities grew from 2 in 1950 to 28 plus 10 Institutes of Teacher Training and Education (known as Institut Keguruan dan Ilmu Pendidikan or IKIP) in 1965. The late 1960s were marked by a new orientation of higher education, particularly towards the American system through a massive input of American lecturers, educational materials, and equipment. Scholarship programs for Indonesian staff at universities in the United States were offered and so was technical assistance primarily in the field of engineering, the sciences, medical sciences, agriculture, and economics (MOEC, 1986a).

Over the period from the 1960s to the 1970s, expansion in higher education lacked an integrated nation-wide policy development and so resulted in uncontrolled growth (Donosepoetro, 1983). Despite the expansion, there were serious problems to confront, especially low external productivity and high attrition rates, low internal efficiency, limited student access, inadequate budgets, unequal stages of development among state institutions, ill-structured field of studies, and irrelevance of programs to societal needs (Donosepoetro, 1983).

It was only in the early 1980s that these problems began to be addressed seriously. "The Government Regulation Number 5 for the Organisation of Universities" was introduced in 1980 to reorganise and provide a formal structure for the existing system. Under the new regulation, administration of academic services, students and staff was centralised in the Rektor (or Vice-Chancellor) as the chief executive of the institution, with the expectation of achieving efficient administration.

Another important change in the 1980s was the introduction of the credit-semester system and the reorganisation of the degree structure. The one-year-round class system was replaced by the credit-semester system, which allowed student pacing and choice of course units in each semester. The three-year Bachelor's and two-year Master's system was replaced a new structure of "Sarjana" (four-year Bachelor), "Magister" (two-year Master's) and "Doktor" (three-year Doctorate). The length of time needed to complete a program of study varies from one discipline to another. Undergraduate diplomas currently take about one to three years of training. At the

in areas such as Law, Accounting and Medicine. Major curriculum revision also took place in this period. With these changes, productivity rates of institutions are expected to improve.

Apart from universities and institutes, there are a number of state polytechnics which provide non-degree courses in numerous technical areas. Unlike the United Kingdom or New Zealand polytechnics which are basically independent institutions, the Indonesian polytechnics until recently were integrated with the existing state universities, and so they were called non-degree faculties. Some government agencies and departments also developed their own colleges, academies and institutions, such as Military Academies and Accounting Schools. These institutions offer programs under the management, supervision and funding from their respective government departments and agencies to meet their staff needs. The Department of Religious Affairs, for instance, has 14 State Institutes of Islamic Religion (known as IAIN or Institut Agama Islam Negeri), specialising in Islamic religious studies and education, scattered all over the country (Nakamura and Nishino, 1993).

#### Private Higher Education

An important component of recent expansion in higher education has taken place in the private sector. Unlike Australia (except for Bond University) and New Zealand, in which higher-education institutions have been under the control of the government and receive funding from the government, in

Indonesia private higher education has been a common feature.

Historically, the College of Engineering in Bandung was initiated as a private institution before it was adopted as a colonial government institution in 1924 (Thomas, 1973).

The State Basic Guidelines mention that education is a life-long process and is the responsibility of the family, community and the government. This allows for the involvement of the private sector in education. Private institutions are generally affiliated with religious organisations, professional groups, and even founded by prominent citizens. These institutions have played an important role in meeting the growing student demand for tertiary education, particularly for those unable to secure a place in the state institutions.

Private institutions are permitted to operate on the condition that they follow the standards set by the Department of Education and Culture. They are strictly evaluated and guided for quality control by the Directorate of Private Higher Education and at the provincial level by the Coordination of Private Higher Education. Private institutions are divided into three categories, i.e., "equalised" (DISAMAKAN), "recognised" (DIAKUI) and "registered" (TERDAFTAR), depending on the extent to which each institution meets the government standards. Generally, this accreditation system is based on the nature of the administrative structure, relations with government, kind and scope of academic provision and training facilities (Atmakusuma, 1974). Equalised institutions are permitted to hold examinations and grant awards or degrees on their own, and are considered equivalent to the state-run institutions. Recognised institutions conduct examinations under government supervision. Registered institutions undertake the tuition and students take state examinations.



In the early 1970s, there were approximately 225 private institutions granting degrees and diplomas (Atmakusuma, 1974). In the middle of the 1980s the number of private institutions reached more than 550, and it has recently expanded to approximately 4000 (MOEC, 1986a; DGHE -- Directorate General of Higher Education, 1990). Most of the institutions are categorised as "registered," with only a few of them being "recognised" or "equalised." This means that most do not meet the criteria of the Department of Education and Culture to achieve the equivalent status to the government institutions. This dramatic growth is justified on the grounds that the government is economically unable to establish additional state-funded institutions. Private initiatives thus have been invited to help the government with the problem of meeting student demand.

Quality control is the major problem of private institutions. Many of the institutions are of poor quality due to the lack of facilities and minimal infrastructure, inadequate lecture rooms or even hired campuses, and lack of academic and administrative staff. Even though they are expected to follow the national curriculum, it is almost impossible for this expectation to be achieved. Government supervision and assistance are provided through the appointment of some state-funded academic staff to improve the standards and quality of private institutions. There also is cooperation between state and private institutions in the form of the involvement of academic staff from state universities to teach in private institutions. On the other hand, private institutions are seen by some academic staff as a means to secure extra money because the salaries in state universities

are so small. Table 3 below provides information on private higher-education institutions operating in 1990.

Table 3  
Private Higher-Education Institutions in Indonesia  
By Accreditation Categories

Private Institutions	Registered	Recognised	Equalised
Universities	1,740	285	215
Institutes	416	34	37
Schools of Higher Learning	864	74	24
Academies	364	53	40
Total	3,384	446	316

Source: DGHE, 1990:16.

High fees charged by private institutions often prevent students from lower socio-economic backgrounds from gaining access. This poses a serious philosophical question as to whether expansion necessarily means equal access to and opportunity for tertiary education. While some segments of the community from upper socio-economic backgrounds can take advantage of the availability of private institutions, those from lower socio-economic backgrounds are disadvantaged by the system, which is based on cost-recovery. Fees are controversial issues in many countries, but in developed countries, such as Australia and New Zealand, the introduction of fees may not make much difference compared to that in

developing countries such as Indonesia.

#### Recent Agenda for Higher Education

Rapid growth has been the key feature of Indonesian higher education in recent times. The number of students in both public and private higher-education system grew from 10,000 in 1950 to more than 800,000 in 1985. In 1989, the participation rate in the tertiary sector reached 8.5% of the college-age (17-24 years) group. Tertiary institutions nation wide enrolled approximately 1.6 million students, and about half a million of them were enrolled in state institutions (DGHE, 1990). The number of public institutions expanded from 2 to 45 (See: Appendix 5 for further details). The number of public graduate-level institutions also developed from 1 to 9 institutions granting doctorates (MOEC, 1986a). In recent years more institutions have started to develop postgraduate programs.

Even in state institutions, diversity in quality remains a major problem. Diversity exists in terms of institutional profile, such as the number academic staff and their advanced professional training, the number of students, library, classroom and laboratory facilities. Some micro-political aspects may make matters worse. For instance, the ability of the senior university officials to negotiate over funding with the central administrators may determine how much funding is provided for their institutions. Institutions which have strong connections or whose academic members have close involvement with the central government have better chances to attract more funding from the government and other donors.

Consequently, even though the government argues that all state universities across the country must have similar curriculum and thus the same academic standards, such reality is difficult to achieve. Many people believe that the best quality of university education is provided by the elite oldest institutions. These institutions have a large number of alumni in important government posts as well as in various private sectors, thus enabling them to attract additional funds. They are elite institutions in a sense that only the best high-school graduates, who inevitably come from upper socio-economic backgrounds, can be accommodated.

The government expectations of higher education are twofold. The first one is to prepare students to become members of the community that have the academic and professional competence to apply, develop and create science, technology and art. The second is to develop and disseminate science, technology and art to improve the standard of living of the community and to enrich national culture (DGHE, 1990). There has been obvious evidence that universities have been able to provide services of national importance. Many of the graduates have served in the government civil services.

There is, however, a question as to whether universities in a developing country such as Indonesia can actually achieve the effective development of high-quality science and technology. While there has been high expectations by the government and the community at large on the role of the university in this area, research funds are scarce, so that research has become an expensive and even an impossible activity in smaller universities. Basic research is out of question because of limited funds and unavailability of

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research infrastructure.

The Government policy in higher education is that during the period of the Fifth Five Year Plan (1988-1993) the participation rate will reach 11% of the 17-24 year age group or approximately 2.5 million students. This will mean an increase of a total student population up to 800,000 enrolments. The emphasis, however, is not only on quantity but also more importantly on equity and quality (DGHE, 1989). To answer the challenge of quality improvement, the "Government Regulation on Higher Education" was introduced in 1990, following the introduction of the "Undang-Undang Nomor 2 Tahun 1989 tentang Sistem Pendidikan Nasional" (Law Number 2/1989 on the National Education System), hereafter referred to as the Education Act 1989. This Act calls for changes in the structure and organisation of the educational system at all levels, while the government regulation specifically deals with the higher-education sector.

The Education Act 1989, for instance, called for the autonomy of state higher-education institutions to manage their own resources. Decentralisation and autonomy are key issues of the 1990s, particularly concerning the development of academic programs and institutional financial management. Decentralisation efforts include both financial management and academic program development, so that universities and institutes will have more freedom in managing their resources and developing programs that meet community demand. There also needs to be a reorganisation of the management of higher education so that it accords with the government regulation (DGHE, 1990). Government policy is that autonomy should be the reward for efforts in quality improvement as well as efficiency

in management (DGHE, 1990).

#### Distance Education in Higher Education

The history of distance education in Indonesia can be traced back to the time soon after the Republic of Indonesia gained independence (Miarso, 1989a). Early in 1951, perhaps the first distance-education system was introduced through "school broadcasting" in West Java, designed for those ex-service men and women whose education had been disrupted during the war of Indonesian independence. Also around the same time, private correspondence instruction was offered to teach bookkeeping and accounting in Central Java (Miarso, 1989a). An extensive development in the use of distance education for teacher training was pioneered by the Department of Education and Culture in 1955 (Setijadi, 1987). This system mostly required correspondence instruction for upgrading secondary teachers.

Further intensive use of distance education started in the 1970s, when the Indonesian government was able economically to finance development in the education sector from the oil-boom income. This enabled the Government to fund new initiatives involving distance education, such as a pilot project on educational broadcasting (1972) and the use of print-based non-traditional instruction for independent study at the primary level (1973) (Miarso, 1989a). The use of domestic satellites for communication since 1974 has had positive impact on educational development. For example, in 1978, the Centre for Educational Communication and Technology known as "Pusat Teknologi Komunikasi Pendidikan" (PUSTEKKOM) was established.

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The same year five open junior high schools in different areas were created to provide schooling opportunities for those students unable to attend classroom instruction (Miarso, 1989a).

The decade of the 1980s was first marked by the development of the rural satellite project for health and education in 1980. Then, in 1981, a program for upgrading junior university lecturers was launched using modular instruction for independent study. This was followed in 1983 by the use of satellites for distance instruction in Eastern Indonesian Universities for training junior lecturers (Miarso, 1989a). The same year a government policy was set for establishing an open university to accommodate a huge number of high-school graduates. The development of distance education culminated shortly after that in the foundation of the UT in 1984. Distance education has been used beyond the formal education sector, such as in agricultural extension and family-planning education. It has also been used for vocational on-the-job training, such as in the banking sector (Kinder, 1987; Budimulia, Suparman and Romiszowsky, 1992).

The extension of primary education from 6 to 9 years beginning in 1994 had a major impact on the preparation of primary school teachers. Pre-service primary school teacher education now requires an additional two years training at the post-secondary level instead of three years of training at the secondary level. Consequently, in-service primary school teachers have to take additional post-secondary training by distance education in order to upgrade their qualifications to keep up with current developments. The task of upgrading these in-service teachers has been assigned to the UT, as it would be

impossible to train teachers on-campus, leaving a huge number of students without teachers. Instruction is carried out in the distance-education mode, yet incorporating intensive tutorials and the use of multimedia technology apart from the printed material as the major learning resource.

The introduction of the Education Act 1989 and the Government Regulation on Higher Education in 1990 has obviously had major consequences on distance education. Unfortunately, there is still no specific regulation and legislation dealing with distance education. The lack of legislation can have a disadvantageous impact on distance education, particularly in terms of allocation of funding and the accountability of the institution. In the recent Government Regulation on Higher Education (1990) distance education is very briefly mentioned: (1) academic and professional education is conducted through face-to-face or distance mode; and (2) distance education is an educational mode conducted through emphasising the use of a number of communication media in the delivery of material including the use of a number of teaching-learning methods.

The UT faces the problem of trust and credibility raised by the public. It is no secret that the UT is unpopular among younger people or recent high-school graduates, despite the fact that it is intended for them. Enormous effort has yet to be made to attract this group of students, for instance, through offering of scholarships and better support services for the students. Yet young people generally opt to study in expensive private institutions because they cannot cope with independent study demanded by the UT, or they are not attracted to being a university student in the distance-study mode.

An important recent development has been the publication of the 1991 Education Minister's decision on distance higher education. The decision has allowed the UT and other institutions assigned by the Ministry to provide study programs by distance education. However, other institutions have not done so yet because they have no expertise, experience, or necessary resources. It will be interesting to see whether the UT will cooperate or compete with other institutions, and whether students are attracted by conventional institutions, which already have a name in the community, to take distance-study courses. There is a possibility that Indonesian policy makers may learn the experience of Australia and New Zealand in the provision of university distance education.

#### AUSTRALIA

##### Development of Higher Education

Compared to Britain, Europe and the United States, Australian higher education is a relatively new system, beginning in the 1850s with the creation of the oldest Universities of Sydney and Melbourne. British characteristics dominated the early Australian universities. During the last quarter of the 19th century the Universities of Adelaide and Tasmania were established. At the turn of the century, the Universities of Queensland and Western Australia were founded with an additional specified task of providing correspondence teaching for remote students. These first six Australian universities were established by acts of colonial or state parliaments to which they were responsible (Ward, 1988). The

number of universities remained static over the period until the Second World War, with one institution in each of the state capitals and higher education being a state responsibility (Harman and Meek, 1988a).

Over the period since the Second World War to the present time, significant development has occurred in Australian higher education. In 1946, there were 25,500 students enrolled at Australian universities. Several universities were added in the 1950s, including the University of New England (UNE). By 1960, Australia had 10 universities with a student population of 53,400 (Meek and Goedgebuure, 1989).

In the early 1960s, pressure to expand higher education resulted in the appointment by the Federal Government of a Committee of the Future of Tertiary Education in Australia (the Martin Committee), to chart the course of the further development of higher education (Meek, 1991). As a result of the recommendations of this Committee in 1965, a binary system of higher education was introduced with the creation of Colleges of Advanced Education (CAEs) as an alternative to the expansion of universities. In contrast to universities, which had mainly an academic and research orientation, CAEs were developed to be more vocationally orientated and to emphasise teaching. Generally CAEs offered both non-degree and degree courses. The Martin Committee considered distance education to be a function of CAEs, not universities.

Growth in the CAEs sector was impressive during the early 1970s, but in late 1970s and early 1980s there was a decline in the growth rate, resulting in a reduction in the number of institutions from 70 to 47 through mergers (Harman and Meek,

created by the middle of the 1970s (Meek, 1991). In the middle of the 1970s, a "trinary system" of higher education was created with the organisation of a national TAFE system as a result of Federal Government initiatives to provide funding for technical and vocational courses needed by the country (Harman, 1991). Another important initiative during the 1970s was the establishment of the Commonwealth Tertiary Education Commission (CTEC) to coordinate the three sectors of tertiary education (Meek, 1991).

During the period from the middle of the 1970s until the early 1980s, Australian higher education entered a period of "steady state," due to an economic recession and the decline in teacher education enrolments (Harman and Meek, 1988a). This was the period when rationalisation was a major theme and the relevance of higher education was being questioned. Not surprisingly, in 1978 the Federal Government appointed the Committee of Inquiry into Education and Training (the Williams Committee) to conduct a major review of key aspects of higher education. This Committee recommended some rationalisation in the system. In 1981 the Fraser Government insisted on an extensive program of mergers among CAEs as a means of reducing Commonwealth expenditure on higher education and addressing the problems of numerous small institutions (Meek, 1991). Previously, the Whitlam Government introduced significant changes which had important impact on higher education in terms of the abolition of fees, an increase in the number of tertiary institutions and the "total" Federal funding.

In late 1985, CTEC set up a committee to review efficiency and effectiveness in higher education and recommend important modifications to the system. By the middle of the 1980s, the

secondary-school retention rate to year 12 and the demand for higher education had increased markedly, even though the number of students enrolled in higher education (in 1983) was only marginally above the mid 1970 figures (Harman and Meek, 1988a). In the meantime, the involvement of the Commonwealth government in higher education had changed substantially, not only in terms of funding but also as far as political interests and policy directions were concerned. In the 1980s, some additional institutions were established and Australia's first private university, Bond University, was founded under legislation passed by Queensland Parliament. Increasingly, during the past four decades Australian higher education has moved towards constituting a national system of higher education, as opposed to being comprised of loosely co-ordinated state systems of higher education.

#### Recent Reform in Higher Education

The recent reform in higher education began almost immediately the Hawke Labor Government was re-elected in July 1987. The Hawke Government saw economic reconstruction and rationalisation as important issues. The Federal cabinet was restructured by reducing the number of ministries. John Dawkins, who was appointed as Minister in charge of the new Employment, Education and Training portfolio, soon introduced a major reform agenda, which was accepted by the Federal Cabinet as part of the Government's efforts in economic reconstruction (Harman, 1991). He believed that higher education needed to become more adaptive to societal needs and more responsive to



on higher education, known as the "Green Paper" (1987), which, with minor alterations, later became a definitive, policy statement on higher education, or a "White Paper" (1988).

The "Green Paper" addressed the need for restructuring in response to rapid international developments. According to the Green Paper, the challenge for higher education was to find the balance between maintaining a system which was independent in pursuing teaching and research functions, and one using higher-education resources more effectively to address pressing economic and social problems, and to meet the increasing needs for an educated population.

The "Green Paper" assumed that changes in the size and nature of higher education since the 1960s had blurred the boundaries between universities and CAEs. In addition, it was asserted there was unnecessary duplication of course offerings among institutions in both universities and CAEs. In order to prevent further duplication of effort and to achieve economies of scale, a Unified National System (UNS) of higher education was created and an emphasis was given to consolidation of institutions to form larger and more efficient institutions. According to the Green Paper (1987), to become part of the UNS an institution had to meet one of three benchmarks:

- (1) 2000 EFTSU for an institution engaged only in teaching.
- (2) 5000 EFTSU (Equivalent Full Time Student Unit) for a university with a broad teaching profile and some specialised research activity.
- (3) 8000 EFTSU for a university with a comprehensive involvement in teaching and research across various disciplines.

The White Paper set out a strategy for the long-term development of Australian higher education and brought about structural changes. CAEs would no longer exist; the binary system would be replaced by the UNS; and small institutions would be amalgamated to form larger universities in order to be eligible to receive Federal Government funding. According to the Government, higher-education institutions under the UNS would have less government interference in their internal management, more freedom in resource allocation, and a share in the future growth of the system (Dawkins, 1988a).

The implications of this reform have been tremendous, especially in terms of how institutions have had to reorganise themselves through amalgamation in order to meet Commonwealth requirements. With the abolition of CAEs, the number of universities has grown considerably, although the total number of institutions has decreased. New institutions have been created, and some older institutions have changed their structure to become multi-campus universities through amalgamation with smaller ones (See: Appendix 6 for further details). Not surprisingly, the restructuring processes did not always proceed smoothly. Some amalgamations experienced major difficulties because of criticism from members of the academic community and combination of institutions of different size and with different cultures. For instance, the UNE Network, comprising the "old" UNE, Armidale and Lismore CAEs, Orange Agricultural College and the Coffs Harbour campus, ran into great difficulties and the NSW and Commonwealth Ministers responsible for higher education have agreed that it should divide into two separate universities.

institutions have produced various problems associated with teaching loads, funding levels, research activity and governance. However, there have been important benefits, particularly from the Government's standpoint, as a result of the reform (Harman, 1991), although many senior university administrators believe that increased control by the Commonwealth government raises important questions about institutional autonomy. Institutions rely heavily on government funding, and the government and the public have demanded that institutions be more responsive to the public needs and the needs of the economy. To many senior university academics, the rhetoric of decentralisation as suggested by the Government has been generally considered as centralisation and increased government control over universities. Another important impact of the reform has been the re-introduction of fees through the Higher Education Contribution Scheme (HECS).

#### Distance Education in Higher Education

Australia has the longest history of distance education among Asia and South Pacific countries. Distance education emerged as a response to the country's geographic and demographic peculiarities, and it has been part of the educational system at all levels since the beginning of this century.

Distance teaching was employed from the turn of the century to enable children in rural areas to study at primary- and secondary-school levels. Instruction was print-based and students were assisted by a member of their family. From these

Schools of the Air. Nowadays these schools employ a small group of teachers based in a broadcasting studio and provide daily assistance to students via short-wave radio transmission (White, 1986).

Similarly, distance education has been part of Australian higher education for a long time, despite the refusal by a number of the oldest universities to undertake such provision for fear of lowering standards. External students constitute an increasing percentage of the total student population, and have provided substantial contribution to the development and innovation of higher-education institutions during this century. Interestingly it was State Government pressures rather than those of academia that encouraged the experiment of teaching at a distance to come into existence (White, 1982).

The story of Australian higher education at a distance began with the enrolment in external studies of 3 out of a total of 83 students in the newly founded University of Queensland (UQ) in 1911 (Johnson, 1983). There also was interest in offering such a scheme at the newly founded University of Western Australia. Unlike at the UQ, which enrolled external students from its inception, external studies at the University of Western Australia materialised only in 1921 when the University entered a major expansion phase (White, 1982).

Both of these newly founded universities shared striking similarities. Unlike Australia's older universities, which were modelled on more elitist British universities, these two universities were philosophically slightly more egalitarian and utilitarian in orientation. The Australian states at that time

economically reliant on primary industry, and politically dominated by rural voters who were suspicious of urban interests, and belligerently egalitarian and utilitarian in mood and ideology" (White, 1982:256). It was thus logical for them to turn for models and ideas to the American state universities and British provincial institutions, rather than to Oxford or Cambridge, in order to respond to the needs of the rural population (White, 1982). At the same time, there were pressures to expand student access to university education, particularly for school teachers located in remote areas.

Distance education was seen as an attractive development because of the small and highly dispersed rural populations. Most country regions were too small in population to support tertiary institutions of their own. Enrolment in external studies was initially dominated by school teachers. More recently, because of the changes such as in Government policies, student needs and socio-demographic trends, other motives have driven institutions to attract distance learners, notably the quest for student numbers (Johnson, 1983).

In the years during the Second World War and post-war reconstruction, enrolment in external studies expanded significantly to allow members and ex-members of the armed services to continue with university studies. Australia's oldest universities, such as Sydney and Melbourne, cooperated to offer such a scheme. After the War, Sydney, and some other universities, withdrew cooperation, despite the strong arguments of the NSW State Education Department and NSW Teachers' Federation for the need for university-level external courses (White, 1982). Such a scheme continued with the UQ and

NSW, was eased in 1955 with the New England University College (NEUC) gaining independence from Sydney University to become an autonomous institution, with external teaching as an important part of its mandate. More recently-created institutions also developed a major involvement in distance education, particularly Murdoch University (taking over from the University of Western Australia its distance-education program) and Deakin University.

Policy changes in higher education over recent decade have had a major impact on the provision of distance education. In the middle of the 1960s, when the Martin Committee recommended the creation of the binary structure comprising universities and CAEs, distance education was welcome by CAEs and then was extended considerably. Some CAEs drew on their previous experience in providing technical correspondence courses at the tertiary level. Many new CAEs responded quickly to the "community service" charter they had been given by introducing or extending external programs in a wide range of fields such as teacher education, business studies, and para-professional, professional, and general education. These schemes largely drew upon the UNE model for the organisation of external study (White, 1982). By the end of 1980, CAEs throughout Australia enrolled 12.9% out of a total 165,070 students in external studies, while external enrolment in universities reached 8.7% out of a total 162,484 (White, 1982).

Since the Second World War a number of important reviews of the higher education were undertaken by various official committees, particularly the Murray Committee (1957), the Martin Committee (1964), the Williams Committee (1979) and the Hudson Committee (1983). All of these have had a significant

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impact on Australian distance higher education (Campion and Kelly, 1988). In addition, a committee chaired by Karmel (1975) and report by Johnson (1983) dealt specifically with distance education.

In the light of the successful development of the UKOU, in 1973 a Committee chaired by Peter Karmel was appointed to advise the Universities Commission on open university-type education. The major term of reference was to enquire into the desirability and means of expanding opportunities in Australia for external-degree courses of university standard (Karmel, 1975). As the result of its enquiry, the Committee suggested three alternatives for creating an agency to encourage and facilitate open tertiary education in the forms of: (a) a special responsibility of an open university or other open tertiary institution; (b) a special responsibility of the Universities Commission and or the Commission on Advanced Education; or (c) an independent statutory authority (Karmel, 1975:82).

The Committee favoured the third alternative, believing that there were substantial arguments against a new single "Open University." It recommended that "a National Institute of Open Tertiary Education should be established as a statutory body, with the general objective of expanding opportunities in tertiary education for all sections of the community" (Karmel, 1975:83). In the end nothing, however, was done about this recommendation.

The Johnson Report was commissioned by CTEC at a time when external studies lacked a national perspective and there was an urgent need for rationalisation. The terms of reference of the investigation were to enquire (1) whether there was

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underprovision of opportunities for external studies in particular disciplines or geographical areas; and (2) to which extent institutions made cooperative arrangements, and how greater coordination and cooperation could be developed (Johnson, 1983).

Johnson's investigation found that there was no national overview for distance education and no effective co-ordination of activities within the various states, despite the existing co-ordination mechanisms for higher education within each state (Johnson, 1983). His findings also revealed that lack of a national overview resulted not only in a repetition of effort state by state, but also in areas of major underprovision. Even though Johnson believed that there was little scope for a radical alteration of the system and rejected the idea of setting up a national distance-education institution, he saw the need for important changes. He recommended creating a framework of national coordination in which providers were categorised into "specialist" and "general" (Johnson, 1983). Johnson's recommendation had not been fully implemented when in 1987 the Government called for further profound reform in higher education, which in turn had significant impact on the provision of distance education.

#### Impact of Recent Reform on Distance Education

The "Green Paper" on higher education circulated in late 1987 by John Dawkins as Minister for Employment, Education and Training commented that external studies had become increasingly important in providing opportunity for Australians to obtain higher education and represented a cost-effective

means of extending access to higher education. The Government's objectives in the provision of external studies were stated to be to reduce unnecessary duplication and to enhance the quality of provision for the greatest number of students.

One particular major concern of the Government for the distance-education sector was the achievement of economies of scale. The Green Paper suggested that the economies of scale begin to operate only when there are 3000 or more external studies enrolments per institution and a minimum of 50 enrolments per unit, with 150 a desirable level. It argued that economies of scale and quality improvement could be achieved by limiting the number of institutions regarded as major providers, thus reducing the number of providers to fewer than ten.

The "White Paper" on higher education of 1988 stated as policy on distance education that there would be about six Distance Education Centres (DECs) funded by the Commonwealth to develop, produce and deliver external studies. Designated DEC institutions would be expected to have a broadly based educational profile and a strong infrastructure, and to meet national as well as State needs in external studies. In the end, eight institutions throughout Australia were designated as DECs. These are listed in Table 4 below.

Table 4  
Location of DEC's and Their Institutional Affiliation

Institution	Location
University of Central Queensland	Queensland
University of Southern Queensland	Queensland
University of New England	New South Wales
Charles Sturt University	New South Wales
Monash University	Victoria
Deakin University	Victoria
University of South Australia	South Australia
Western Australia DEC (WADEC)	Western Australia
(based at Murdoch University, and including Curtin University of Technology and Edith Cowan University)	

Source: Johnson, 1991:16.

The impact of the reform on university distance education has been dramatic. New major providers of distance education have been born through amalgamations of former CAEs which had strong distance-education programs and through absorption of CAEs into existing universities. Some DEC's are located in the newly created universities, or in "new" universities which earlier had no or little involvement in distance education. Because of the Federal government pressures, the UQ, the longest-serving institution offering distance education, reduced its distance-education programs significantly in 1989, as Queensland has already had two DEC's, in Southern Queensland and in Central Queensland.

During this century since distance education was introduced in Australian higher education, as already noted, there have been important changes in the way distance education

has been conceptualised and practised. These developments can be categorised into three broad phases: the external-studies phase, the distance-education phase, and the open-learning phase (Campion and Kelly, 1988). The external studies phase ran approximately from the introduction of external teaching in UQ in 1911 to the early 1970s. In this period, a distance-teaching system was developed in which academics taught and prepared courses for both internal and external students without significant input from other professionals, such as graphic artists and instructional technologists.

The distance-education phase developed from the early 1970s and continued to the middle of the 1980s. The main stimuli for change was the development of the UKOU, in which the preparation of self-instructional materials and use of broadcasting were central features. Quality of teaching materials thus began to receive much greater attention in Australian distance education.

According to Champion and Kelly (1988), the idea of open-learning began in the middle of the 1980s, in which significant changes were effected in terms of teaching methods, clientele, and types of courses. The new ideas included not only the traditional face-to-face classroom teaching, but also distance teaching, involving the separation of the learner and the teacher, and recently open learning, which enables the greater freedom and flexibility on the part of the students. In practice, however, the open-learning movement effectively has only just begun in Australia, for example with the recent creation of the Open Learning Agency of Australia. This agency has enabled students to undertake open-learning studies in a

traditional DEC system.

The idea of convergence between campus-based and distance education has started to gain popularity. The current reality of convergence and flexibility for mixed-mode study, in which students have freedom whether to choose on-campus or distance study, has put distance-teaching universities under increasing pressure to adapt to this challenge. When the DEC system was created in 1989 with the major purpose to enhance university distance education by reducing duplication, fostering institutional cooperation and improving efficiency, there was no particular expectation that the principles, methods or materials of distance education should be turned to the advantage of all students (NBEET, 1992). Rapid technological changes and innovation have raised the possibility of increasing the flexibility of the higher-education system to the benefit of all students, on-campus as well as distance students (NBEET, 1992).

In a more recent development, some DEC institutions have attempted to accommodate activities and promote effort relating to the application of advanced learning technologies to the delivery of courses irrespective of study mode. At the UNE, for example, a resource-based teaching unit has been developed within the distance-education unit to develop learning resources which benefit both on-campus and distance students, and the UNE DEC has been formally retitled DEOLC (Distance Education and Open Learning Centre). At the national level, the national body, NDEC (National Distance Education Conference), has been replaced by NCODE (National Conference on Open and Distance Education), which attempts to put greater emphasis on the promotion of both open and distance learning

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(AVCC, 1993).

## NEW ZEALAND

### Development of Higher Education

The birth of New Zealand higher education took place soon after the creation of Australia's first universities. Like their Australian counterparts, New Zealand universities were influenced by British and, to a large extent, Scottish traditions in their academic systems. The University of Otago was the first university to be founded in New Zealand in 1869, with power under a provincial ordinance to grant degrees. In 1873 Canterbury College was founded in Christchurch, also in the South island. These two institutions had strong ties to British institutions (Gardner, 1979).

The Acts of 1870 and 1874 created the University of New Zealand (UNZ) as an examining body on the pattern of the University of London at that time, with power to grant degrees equivalent to those granted in other parts of the British Commonwealth. Both institutions sought a Royal Charter to grant degrees, which then was only given to the UNZ, with the first Charter in 1876 and a supplementary one in 1883. The University of Otago later joined the system voluntarily as a constituent College of the UNZ, but retained its original name (Currie and Kedgley, 1959).

Unlike most current Australian universities, which developed during the expansion period following the Second World War, almost all New Zealand universities had their roots in the colonial era, well before the turn of this

century. The third institution to be founded was Lincoln College, originally known as the School of Agriculture of Canterbury College. It was created in 1878 in recognition of the dependence of New Zealand on the growth of agriculture. Two further institutions were established before the end of the century, both in the North Island, i.e., Auckland University College (1882) and Victoria University College in Wellington (1897). The growing need for agricultural education in the North Island was answered in 1926 with the creation of Massey Agricultural College at Palmerston North, which was later to become MU (Langer, 1989). New Zealand universities from inception were utilitarian in orientation, as indicated by the offering of programs in fields such as agriculture, mining, and engineering apart from other disciplines such as medicine (Gardner, 1979).

As in many other developed countries, New Zealand higher education has since then undergone major developments. Following the Second World War, significant changes took place in the university sector. In the 1950s, the university system was forced to meet the new needs of the country's economic and social developments. In 1956, devolution towards the development of independent provincial universities was initiated on the recommendation of the University's Senate to designate "university" status to colleges at Auckland, Wellington and Christchurch. An Act to embody this recommendation was passed in 1957 and came into force in January 1958 (Currie and Kedgley, 1959).

These developments reached a peak in 1959 following the appointment of a Committee commissioned "to indicate ways in which the tertiary education system should be organised to ensure that the

long term pattern of development is in the best interests of the nation" (Hughes Parry Report, 1960:5). The Hughes Parry Committee recommendation was in favour of devolution, and thus ending the federal university system.

Appropriate legislation was passed, and from the beginning of 1962 the UNZ was replaced by four autonomous universities, those of Otago, Canterbury, Victoria and Auckland. Lincoln College became a constituent though largely independent college of the University of Canterbury. Massey University as an autonomous institution, and the University of Waikato were added in 1964 (Langer, 1989). Also in line with the recommendations of the Committee, other expansion included the fostering of postgraduate studies, the reorganisation of the University Grants Committee (UGC) and the use of a quinquennial funding system related to student numbers. Despite the growing numbers of students, no new university has since been created in New Zealand, except for the re-constitution of Lincoln Agricultural College as Lincoln University in 1990.

Apart from the universities, New Zealand tertiary education is provided by teachers' colleges or colleges of education, polytechnics (formerly known as technical institutes) and community colleges (Waters, 1988; Langer, 1989). Teachers' colleges are responsible for the preparation of primary school teachers, while secondary school teachers normally take degrees from universities. New Zealand has six teacher's colleges under the control of the Education Department. Normally teachers' colleges do not grant degrees. However some colleges have made an arrangement with the local university to jointly offer degrees, such as Hamilton Teachers' College with the Waikato University. The Palmerston North

Teachers' College offers advanced diplomas by distance education (Snook, 1991). Table 5 below lists New Zealand Universities and provides information on enrolments and student load.

Table 5  
Number of Students and EFTSU Enrolled by  
New Zealand Universities

University	Number of Students*	Total EFTSU**
Auckland	15,871	10,522
Waikato	7,020	3,174
Massey	23,721	9,652
Victoria	9,668	5,066
Canterbury	9,878	7,442
Lincoln	2,061	901
Otago	11,004	8.063

Note: \* As at 1 July 1989

\*\* As in 1988 EFTSU

Source: P. A. Sandbrook, 1989:5; Education Statistics of New Zealand, 1990:76

Polytechnics grew out of technical institutes, while community colleges were created by the third Labour Government (1972-1975) as part of its regional development policy (Snook, 1991). There are now 24 polytechnics, which offer various vocational training courses ranging from general interest to technical specialities, in metropolitan and provincial centres (Langer, 1989). These institutions have had flexibility in the design and provision of courses, even though they are under the control of the government in terms of funding. Polytechnics

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and teachers' colleges are managed by their Boards of Governors, with the funding being supplied by the government (Waters, 1988).

Universities, on the other hand, until recently operated under the auspices of the UGC which interacted directly with the government and independent of the Department of Education (Waters, 1988). In 1987, the New Zealand Government spent around 30% or \$958.8 million out of a total education budget of \$3.10 billion on the tertiary-education sector (Wagner, 1988).

#### Recent Reform in Higher Education

Recent change in the higher-education sector took place following the election of the Fourth Labour Government in 1984 (Snook, 1989; Patterson, 1991). This Government brought in what some commentators described as "New Right" ideas, in which economic rationalism dominated educational and other social policies (Lauder, 1987; Snook, 1989). The "New Right" educational policy was premised on two fundamental principles. First was the view, consistent with the theory of human capital, that education was a private good and should therefore be paid for by the individual. The second principle emphasised the importance of competition to achieve efficiency in educational system (Lauder, 1987).

The reform was driven by the ideological commitment to market-based economics by the Finance Minister, Roger Douglas, following the election of David Lange as the Prime Minister (Patterson, 1991). In the eyes of the Department of the Treasury, the universities were seen as conservative institutions with little accountability. The Treasury called

for the introduction of a competitive market culture in the provision of funding, accompanied by managerial and organisational changes, and removal of state intervention in the tertiary-education sector (Patterson, 1991). Many educationists did not agree with these policies and mounted strong criticism (Lauder, Middleton, Boston and Wylie, 1988; Boston, Haig and Lauder, 1988; Hughes and Lauder, 1991).

The Labour Government's "New Right" goals and related strategies were expressed in a manifesto called "Government Management Volume II. Education Issues," which discussed the Treasury policy recommendations on education. The Treasury document, which was circulated in 1987, sparked heated reaction and criticisms. Some critics considered the reform as a retreat and argued that the policy contained inconsistency or conflicting views. The policy called for market orientation on one side, but demanded quality and equitable distribution of opportunities on the other side. A more fundamental problem was that the Treasury failed to consider a range of different educational philosophies and hence failed to identify and evaluate a range of possible policy options (Boston, Haig and Lauder, 1988).

Earlier in 1986, in what Snook (1991:624) described as "an effort to ward off the tide of "reform" threatening the whole system," the universities set up their own review committee comprising a group of international experts chaired by a Canadian former University President, Dr. Ronald Watts. The Committee was impressed by the high standards of New Zealand universities, although it believed that they were under-resourced. Furthermore, despite a policy of open enrolment, the participation rate in New Zealand was one of the



lowest of all OECD countries (Snook, 1991).

The Watts Report (1987) provided a number of recommendations. First, it recommended that a national strategy should be developed to strengthen university education and research, and to improve participation rates. Second, it said that the commitment of resources on a planned basis should be developed. Third, it argued that universities should increase their adaptability to societal needs. Finally, it recommended that the focus for development in universities should be given to teaching programs directed to life-long learning; strategies for concentrating research efforts; emphasis on the long-term character of university education and research; and closer linkages with other tertiary institutions, government, corporate world and the private sector (Watts Report, 1987).

A number of commentators disagreed with the views of the Watts Report. Kerr (1988) criticised the report in terms of the absence of a framework to assess the provision and financing of university services, and its lack of analytical rigour in much of the discussion. He described the report as an "establishment" document defending a status quo which it did not question too deeply, and hence it was unlikely that the Report provided policy makers with a useful basis to confront the problems of university development. Similar views were put forward by Boston, who argued that the report lacked analytical bite and logical arguments (in Snook, 1991).

Over the period between 1987 and 1989 alone, there were three further reviews and four policy documents which had a profound effect on New Zealand education (Snook, 1991). The

general thrust of the reviews and policy statements was towards

radical transformation of the entire educational system, in which the system would be decentralised with each "learning unit" becoming a basic administrative unit (Snook, 1991). During that period, the Hawke Report was produced as the result of a review committee on "Post-Compulsory Education and Training" (PCET), set up by the Government as part of its overall reform in education. The Hawke Report recommended (1) a considerable degree of decentralisation; (2) a centralised Ministry controlling all sectors of education; (3) the creation of the National Educational Qualifications Authority (NEQA); and (4) the separation of teaching and research such that the research component of university staffing would be "contestable" by all tertiary staff (Snook, 1991:628-629).

The universities reacted strongly against the recommendations of this report. They claimed that a move to a more decentralised system was misleading in that the Ministry had control of finance and hence of the institutions, and ultimately the universities would lose a substantial degree of autonomy. Universities were also worried about their research components being reduced to a contestable field (Snook, 1991). Despite such criticisms, in 1989 the Government published its policy documents ("Learning for Life and II"), re-affirming the major recommendations of the Hawke Committee. The Government went further in 1990 to introduce legislation into parliament (Education Amendment Bill 1990) to enforce changes already proposed. The universities were enraged because the legislation was, from their perspective, designed to cover all tertiary institutions, without distinguishing between them. The universities fought hard and were successful in securing significant amendments to the Bill, thus securing their

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position and views (Snook, 1991).

Soon after unprecedented changes took place suddenly. In October 1990, the National Party became the Government following the defeat of the Labour Government at a general election, hence ending the six-year period of major reform initiated by the Labour Government. The new Government is committed to Labour's economic strategy and policy recommendations. In the foreseeable future, although dramatic changes towards a more integrated system are inevitable, these changes are more likely to come from future economic and social changes than from government initiative (Snook, 1991). The changes in New Zealand tertiary education demonstrate how political factors brought about major transformation in the system. In times of economic turbulence, economic thinking tends to dominate social policies, including those in the field of higher education.

#### Distance Education in Higher Education

New Zealand has shared a similar experience to Australia in terms of the long history of the provision of distance education courses. Like Australia, New Zealand distance education originally emerged from correspondence instruction to meet the needs of isolated school pupils. In the 1920s the New Zealand Correspondence School (NZCS) was created to teach primary, aged, isolated and other pupils unable to get to a local school (Gunn & McMeachan, 1987). The original aim of offering courses at a distance was to provide the opportunity for the isolated, disabled and disadvantaged pupils to obtain schooling. Demand was so great that distance-education courses

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came soon to be offered at the primary, secondary and tertiary levels.

New Zealand and Australia share similarities in terms of the importance of the political factor in the development of distance-education programs. Tertiary distance education in both countries has involved strong community support and political will on the part of State governments in the case of Australia and the central administration in the case of New Zealand. Also, there was a commitment from institutions and their staff to embark on this venture. As experience has indicated in Australia and New Zealand, distance education is not an activity which can readily be added on to the duties of a normal university department (Holborow, 1988).

In New Zealand, there has been only one major institutional provider of distance education in each of the tertiary sectors (Prebble, 1991a). At the school level, there is the NZCS, which mainly serves school-level pupils: primary, secondary, and in some cases adults. Admission to this school is restricted to students unable to attend classroom teaching at the local school because of the geographical distance, unavailability of a course or specialist service at the local school, and factors such as health, disability or job requirements. Courses are taught using a variety of media apart from print, such as regular radio broadcasts, audiotapes, telephone, magazine and newsletters. Other support services include resident teachers, guidance services, library services, school camps, seminars and recreational clubs. Course material is produced by the teaching staff of the school, involving a team of production advisers and editors (Gunn and McMechan,

with the NZCS for one or two subjects (Prebble, 1991a).

Vocational and technical courses at a distance are offered by the Technical Correspondence Institute (TCI) at Lower Hutt, now known as The Open Polytechnic of New Zealand (OPNZ), a single-mode distance teaching institution. Originally, the technical and vocational programs were provided by the Technical Secondary School set up at the turn of the century for students who had no prospect of gaining university places, but who required specified skills not offered in the existing conventional secondary schools. In 1960, these schools were converted into a national system of technical institutions at the tertiary level for both part-time and full-time students, leaving their school-age pupils to transfer to new or existing secondary schools. In the meantime, following the Second World War, a Technical Correspondence School under the control of the Department of Education was created to provide returning servicemen with the opportunities to study for a vocational qualification.

In 1961 a reform created a national system for the provision of technical and vocational courses by distance-education methods with the establishment the TCI. In 1971, this Institute was separated from the Department of Education and was placed under the control of a council representative of government and employers and employee organisations (Gunn and McMechan, 1987). The TCI provides technical subjects to meet the needs of industry throughout the country. Course material consists basically of print and is produced and developed by the Institute's tutors recruited from industry and commerce. Student support services are provided through tutors' comments, contacts in seminars, by telephone,

staff and tutors' visits and student guidance. In 1991 the TCI was retitled the OPNZ. It has a staff of over 500 and an annual enrolment of around 30,000 students (Prebble, 1991a).

Teacher education at a distance has been provided by the Advanced Studies for Teachers Unit. Its history can be traced back to the expansion of the school system following the Second World War. During that period, teachers' colleges expanded their intake to meet student demand. By the end of the 1950s, the State Education Department identified the need for retraining and upgrading of the teaching profession and then introduced a Diploma of Teaching program, part of which could be completed via distance education taught by a special division of the Correspondence School. This Unit was under the control of the central Education Department. In the early 1980s, this Unit was moved to the Palmerston North Teachers' College. At that time, it was expected there would be a merger between the College and MU, the nearby institution which offered a wide range of distance-education programs. However, this did not happen until recently (Prebble, 1991a).

Extramural studies at the university level has had a long history, almost since the inception of New Zealand university education. "Open" university education has been in operation for many years through the wide public access or open-entry policy and off-campus enrolment (Bewley, 1982). MU, a dual-mode university, now serves as the major national provider of distance education, even though off-campus teaching began earlier before Massey was created.



### Impact of Recent Reform on Distance Education

Recent policy changes introduced by the Government have had a significant impact on New Zealand distance education, including the university sector. Take the introduction of higher fees in 1990 as a specific example. While most universities did not experience a decline in enrolments, MU extramural enrolments underwent an 18% decline, although it remains to be seen whether this is a temporary or a permanent effect of the policy (Snook, 1991). Another area of change is that the monopoly of MU as the provider of distance education has been challenged by other universities. The Government believes that deregulation will encourage healthy competition among institutions, which in turn will have positive effects on accountability and on the efficient management of institutions.

Despite its long history, New Zealand distance education has been developed without the benefit of specific legislation and hence lacks an explicit legislative policy base. Funding remains problematic to most institutions involved in distance education. The recent policy has made matters even worse. The funding formula placed subjects in bands depending on the teaching costs, with subjects like the humanities at the lowest level, and medicine at the highest. Unlike in Australia, in which external teaching is funded at the same level as internal teaching according to various disciplinary groups, in New Zealand the funding for distance education was discounted by 20% of the appropriate band rate (Prebble, 1991a). In 1990, the Ministry of Education introduced a new funding system so that all distance education enrolments generated equivalent funding at the rate payable for the lowest band. The obvious

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implication is that science-related departments will be less enthusiastic to offer distance-education courses as such courses will generate less income and incur higher costs than that comparable courses for internal students (Prebble, 1991a).

Until the middle of the 1980s, there was a deliberate policy of the UGC to concentrate distance education at the university level in MU. Other universities have challenged the monopolistic system for a number of reasons. First, other universities have developed an interest in offering programs not significantly developed at MU, such as Medicine in Otago and Library Science in Victoria. Second, some universities have increasingly wished to enhance their regional roles. Third, recent advances in technology have changed teaching methods and have made possible new initiatives in the delivery methods of distance teaching (Holborow, 1988).

While recent restructuring has ended the monopolistic system, the deregulated environment also has been under criticism. Prebble, for instance, disagrees with competitive provision of distance education for economic reasons. He asserts that competition among providers may not be wholly beneficial, as the market for distance education is not infinite in New Zealand, and a proliferation of providers could quickly erode the economies of scale already achieved by the single large provider. If the recent experience in Australia is applicable to New Zealand, he argues that this would lead not to an expansion of choice and an improvement in quality, but quite the reverse (Prebble, 1991a). If the trend continues, Prebble argues that New Zealand will probably experience circumstances involving duplication of course offerings, lack of coordination and lack of economies of scale

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in provision, which will cause problems similar to those experienced in Australia.

#### Concluding Remarks

Indonesia, Australia and New Zealand are obviously very different in many respects. In terms of geography and demography, Indonesia is a huge archipelago comprising thousands of islands, some of which are almost empty and a few are densely populated; Australia is a huge and thinly populated land mass; and New Zealand is relatively a small island country comprising two major population centres in the North and South islands. Demographically, Indonesia has approximately 180 million population and, as a typical developing nation, it has considerably higher population growth rate than Australia and New Zealand. Australia's 17 million population is only one-tenth of that of Indonesia, and New Zealand with 3.3 million people has just approximately one-fifth of the Australian population.

Economically, Indonesia is a developing and would-be middle-income country with major reliant on oil, natural resources and recently increasing semi-manufactured products as export earning. Australia and New Zealand are both classified as industrialised countries with a high per capita income. Their industry is more diversified, even though export income earnings are largely dependent on primary produce.

The three countries have different histories and origins of their educational systems. Indonesia, being a long-time Dutch colony, has had a strong Dutch influence (particularly in its earlier periods), and recently there have been important

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influences from other countries, particularly the United States. These influences have been blended with local national initiatives. Functional literacy and universal access to primary education is still yet to be achieved. Major expansion in secondary education and nine years of compulsory education has just begun. The participation rate in higher education is relatively low, despite the Government's efforts to expand access through the government-supervised private tertiary education and foundation of the UT.

Compared to New Zealand and Australia until recently, the state higher-education system is less diversified, comprising 45 four-year universities, and agricultural, technological and teacher-training institutes. The system will be genuinely diversified when it includes private institutions and other institutions beyond the supervision of the Department of Education and Culture. Indonesian higher education was introduced in the early 20th century as a response to what the colonial regime described as "the ethical policy" to provide education to the indigenous people to meet the colonial interests. Distance education has been introduced in response to the problem of distance and more importantly numbers, and it was non-existent until soon after the Republic gained independence. A distance-teaching university was created recently to provide an alternative for recent high-school graduates and working adults to obtain tertiary education.

Australia and New Zealand have much in common. They both inherited British traditions, and these traditions are likely to continue to influence their systems. Australia and New Zealand have achieved functional literacy and universal access to education up to the secondary-school level. Mass higher

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education is in place, although the participation rate is considered to be somewhat lower than in the United States and Canada. Their higher-education systems developed soon after European settlement began. In Australia, distance education has operated for a long time in response to the challenge of the "tyranny of distance" (Northcott, 1984). Similarly in New Zealand, distance education has been used to reach students in remote places.

In the three countries, distance education has become part of an integrated system of national strategy to expand access to higher education. Indonesia has reacted to the growing demand for student places in state higher education by creating the UT as a national provider. The Government is aware that creating new state-funded conventional universities is out of question in a time of economic stringency, especially as the country also requires huge investment in the primary and secondary-school sectors for the provision of resources and infrastructure. With the recent introduction of the Education Act 1989, institutions theoretically have more autonomy in managing their resources. Other universities are allowed to offer distance education. However, competition in the provision of distance education under this deregulated environment seems to be unlikely, as many institutions have very limited resources to develop such programs.

In Australia, with the higher-education system being effectively a shared responsibility between individual State and Federal governments, the Federal Government would have difficulty in creating or imposing a single, unitary, centrally-controlled open university. As an alternative, eight

DEPs were created, with at least one in each State except

Tasmania. DECs theoretically cooperate with one another and with other institutions through a coordinating body called the National Distance Education Committee (NDEC). In 1993, a new body replacing NDEC was developed. Called the National Conference on Open and Distance Education (NCODE), this body serves as a forum which seeks to promote and coordinate activities relating to the application of advanced learning technologies to the delivery of higher education (AVCC, 1993). TAFE colleges provide technical and vocational training using distance-education methods. The Federal Government has also provided funding through the Open Learning Agency of Australia for open-learning courses offered by a consortium of a number of universities under the coordination of Monash University.

New Zealand has responded to the need for distance education at the university level by allowing MU as a major provider to serve its national population, even though this monopoly has been increasingly challenged by other universities in recent times. At the vocational level, the Open Polytechnic of New Zealand responds to the demand for technical training. The open learning movement is also taking place in New Zealand, where the Government believes that learning should be seen as an integral part of life rather than as a preparation for life. Being a small country with a small population, New Zealand provides distance education which is concentrated on a few institutions, practically one in each sector of education, to achieve economies of scale.

Change and expansion are common themes in systems of higher education at a distance in Indonesia, Australia and New Zealand. Reasons for change vary, but generally change has been encouraged by political factors, economic changes, changes

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in societal demands, population growth and even influences from international trends. Policies for higher education in the three countries are different, representing differences in government priorities and in societal demands. Although the three countries share a similar goal of achieving mass higher education, their systems operate in different ways. Indonesia has only one open university as a major provider of university distance education. The country can learn some of the experience of Australia and New Zealand in setting up dual-mode institutions to expand access to tertiary education.

UNIVERSITAS TERBUKA

## Chapter 5

### UNIVERSITAS TERBUKA, INDONESIA

As Meek (1984) has commented, social institutions are shaped by environmental and historical influences, and so this chapter begins with a discussion of the history and origins of the Universitas Terbuka (UT). Following that the case study considers problems in the early operations of the UT and assesses its achievements during the first eight years of its life. Management approaches and teaching methods are analysed from different perspectives: the nature of UT as a university involving "a network of participating institutions"; organisational structure, resources and funding; the needs for regional learning-resource centres; course development and instructional methods; student-support systems; and future outlook to the year 2000. It is argued that as a distance-teaching university, with teaching being its primary function, the UT has developed industrial-enterprise characteristics and strong management cultures. This chapter concludes that the UT, being set up in a developing nation, has rather different philosophies, missions and goals from open universities of the developed countries.

#### History and Origins

The development of human resources has been the major challenge for Indonesia. One means for meeting that demand is through expanding access to and improving the quality of education. In the 1970s, secondary-school teachers were trained through crash programs, which led to underqualified

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teachers. So in the 1980s there was a felt need to upgrade their skills and expertise. The Government saw no other means of effective retraining apart from distance education. Beginning in the early 1980s, underqualified teachers were upgraded through distance education under the coordination of the Directorate General of Higher Education (DGHE) and with the assistance of the local Institute of Teacher Training and Education Studies, known as IKIP (Institut Keguruan dan Ilmu Pendidikan).

Another urgent problem was the ever-increasing number of senior high-school graduates who could not gain places in state higher-education institutions, while the Government had been campaigning for equality of opportunity and access to development in various sectors, including education. The pressure for expansion in higher education in the 1980s derived from the impact of the 1970s oil boom, when the government was able to expand primary and subsequently secondary education using the oil-income windfall, and a dramatic growth in the college-age population. Later in the 1980s, these secondary-school graduates wished to embark on higher education at the time when the country, like most other countries in the world, was faced with prolonged economic recession. Although Indonesian higher education enjoyed significant growth during the 1960s, since then no additional institutions have been added to the public higher-education sector.

In 1982 there was keen interest from the DGHE in creating an open university, but the idea was not welcomed by the incumbent Minister of Education and Culture, who was unsure about the quality of education to be expected through distance

sophisticated facilities for an open university (Setijadi, 1992). In 1983, a new Cabinet was formed, and Professor Nugroho Notosusanto was appointed as the new Minister of Education and Culture. As Minister he helped speed up the development of an open university, with the appointment of the "Preparatory Committee for the Foundation of the Universitas Terbuka" in October 1983. A month later, when the Committee was asked by the Minister about progress with preparations, it offered two alternatives, either to delay the opening for about a year, or to continue the opening as already planned in 1984, risking the consequences of its limitations. The Minister opted for the second alternative, and jokingly said that "as long as the problems do not appear in the front page of the newspapers, the mistakes are forgivable" (Setijadi, 1992:5). According to the Minister, delay would only undermine the credibility of the Government's educational policy. The Committee thus had only nine months for preparation.

The period of time from when the decision was made until the opening of the UT was relatively short, so planning was rushed and hectic. The UT did not even have an office of its own, so with the kindness of IKIP Jakarta, the UT was able to secure temporary accommodation. Even worse, no funds were allocated for the UT for the Budget Year 1983/1984, because of the delay of its original planning. In the end, with the assistance and approval of the DGHE, the Secretary General of the Department of Education and Culture and the Agency for National Development Planning, the UT received some funding. But only in the following year did the UT receive its own allocation.

The introduction of modern educational technology, especially the use of the domestic satellite system for communication, and the availability of cheap postal services to most areas in Indonesia, made possible the UT operation. In the first place, the UT had to develop important links with the Post Office for distribution of materials and registration services; with the Universitas Indonesia for computerised data processing and handling of examination results; and with other state universities to develop regional offices. The Post Office offered facilities in terms of priorities provided for the UT's course materials and other administrative materials to be delivered throughout Indonesia, and in registration and collection of fees. As vital equipment for data processing and student administration were unavailable, the UT had to rely on the computer system of Universitas Indonesia initially. The directors of regional centres were generally prominent senior academics designated by the local traditional universities. In the early years, there was no regulation regarding the length of appointment of these directors, and a review is being undertaken on this matter. These links enabled the UT to operate adequately in its early life.

Following consultation with the higher-education consortium, four first-degree programs of studies were initially offered, namely public administration, business administration, economics and development studies, and applied statistics. Other programs were taken over from the now-defunct "Teacher Education by Distance Education Project." Program development began with curriculum development based on a core curriculum, followed by the development of self-contained course materials. This activity involved a

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large number of staff from major state universities and institutes. The participating state institutions then were asked to appoint heads and provide space and facilities for the regional offices (Setijadi, 1992).

Problems in establishing the UT were compounded by the lack of experts on the Committee who had experience with running distance-education programs. Initially, there were some overseas consultants involved, particularly from the United States, the United Kingdom and Iran. Although these experts were interested in assisting the UT in planning its operation, none of them actually understood the cultural, social and political factors likely to influence the early development of the UT. Their advice was relevant, but less effective than it might have been.

Finally on the 4th of September 1984 President Suharto on television inaugurated the UT. This was followed by an inaugural lecture presented by a well-known economist, Professor Sumitro Djojohadikusumo. The following day, the Minister of Education and Culture appointed the Rektor, Professor Setijadi.

A number of Canadian consultants, particularly from the Open Learning Institute (OLI) in Vancouver, British Columbia, have subsequently helped the development of the UT system. Funded by the Canadian International Development Agency (CIDA), these experts have been involved in the development of the design for management, organisation and operations of the UT. The idea of having no academic staff of its own, for example, was modelled on OLI (which has now become part of the Open Learning Agency or OLA). Canadian consultants have provided technical advice such as on the development test-item banks,



and on the production and distribution of the course material. It is thus not exaggerating to say that the OLI model, rather than the better known UKOU system, has served as the blueprint for the UT. This differs from experience of most other open universities in developing countries such as Thailand's Sukhothai Thammathirat Open University (STOU) and India's Indira Gandhi National Open University (IGNOU).

The Canadian government also has provided substantial assistance for staff development and consultancy, since the early operation of UT until the present time. CIDA assistance has enabled the training of staff for advanced degrees in distance-education management. So far more than 70 UT staff have done advanced training in distance education, mostly for higher degrees, in British Columbia, Canada. Many of the staff were trained at Simon Fraser University and many of them are still being trained at the University of Victoria in Canada. Some UT staff also have undertaken on-the-job training at the OLI. Other scholarships have offered the opportunity for many of UT's junior academic staff to undertake advanced studies in national universities as well as overseas universities, including those in Australia and the United Kingdom.

In addition to that, World Bank funds have enabled the training of UT staff in educational technology in some American universities, because the DGHE set up an Inter-University Centre for Improving and Developing Instructional Activities (IUC-IDIA), based at the UT. This Centre, however, has been developed to help improve and develop instructional activities in national higher-education institutions through training and staff development rather than to serve the UT in particular.

Although it is based at the UT, there is little help to be

expected from the staff of the Centre to have a significant contribution to instructional development at the UT.

The UT was set up by the Government on the grounds that a number of benefits could be achieved. First, an open university did not require a large number of scarce full-time academic staff to teach large numbers of students. Second, the institution did not need new physical facilities, except for the accommodation of its administrators and staff members. Third, the university could make use of the resources available in the existing universities without necessarily disrupting their major activities. Fourth, an open university was considered likely to be economical by the Government and accessible by the students.

The existence of UT was intended as complementary to the existing higher education system, rather than as an alternative (Suparman, 1988). Such an institution was expected to be able to accommodate high-school graduates unable to secure places in traditional universities, and to continue the existing effort to upgrade underqualified teachers. Yet it has been recognised that the expectation to successfully meet the needs of high-school graduates could not be fully achieved. According to the 1991 statistics, more than 75% of the registered students were working adults. Women contributed around one-fourth of the total registered students. Only around 15% of the registered students were aged 24 years or younger (UT, 1992b). It is somewhat difficult to indicate exactly how many recent high-school graduates enrolled in the UT. An estimate by the former Rektor a few years ago indicated that only one-fifth of the UT students were recent high-school graduates.

However, in terms of head count, the UT had the largest recent

high-school enrolments of Indonesian institutions.

Despite the political support of the Government, the UT still lacks its own enabling legislation. Unlike some other open universities, which have been created by an Act of Parliament, the UT was developed on the basis of a Presidential Decision. Thus its legal basis is weaker than that of other universities. Further still, the institution was created before the introduction of the "1989 Law on the National Education System," in which distance education is only very briefly mentioned.

#### Problems in Early Operations

As a newly developed institution, the UT faced a number of problems which necessitated immediate action. These problems had to be addressed to ensure the UT's survival as a distance-teaching institution designed to serve a large nation-wide clientele. In its early development, the educational philosophy and organisational arrangements designed to support the University did not work as expected. The weak response in terms of new student enrolments after the first year or two, and the rapid increase in the numbers of passive students who were unlikely to seek re-enrolment, provided telling evidence of this (UNESCO-ICDE Report, 1990).

Dunbar (1991) argues that the development of a Western-style enterprise, such as an open university, in a non-Western environment may not always be considered as appropriate. He claims that the development of a university distance-education system in Indonesia was a failure on the

adaptation to the local cultural circumstances. Citing the UNESCO-ICDE report produced by Smith and Curran (1990), Dunbar (1991) indicated a number of problems faced by the UT in its early development:

- (1) A high drop-out rate combined with a significant decrease in new enrolments;
- (2) Over-centralisation of most functions to serve a geographically-dispersed clientele;
- (3) Difficulties in producing a large quantity of high-quality teaching materials;
- (4) Poorly qualified and supervised staff with little motivation to provide services for students;
- (5) The absence of mechanisms for monitoring the learning progress of students;
- (6) The exclusive use of text-based mediation following the early abandonment of face-to-face tutorial support;
- (7) The use of multiple-choice examinations for assessing student learning performance;
- (8) No requirement for students to possess learning materials produced by the university;
- (9) A system of administration lacking cohesiveness and responsiveness, and the use of regional centres purely for administrative purposes;
- (10) The use of outside course writers leading to loss of control over the process and delays in materials production; and
- (11) A cumbersome and unreliable system of materials distribution.

There were, in fact, many difficulties which were beyond the UT's control, its expectations and philosophies. The economic circumstance in the middle of the 1980s had a devastating effect on the UT financial situation. As with other Indonesian tertiary institutions, the UT had to come to terms with significant budget cuts during that period. Although less demanding entry requirements were offered to students, such as no necessity to possess the course materials, and the use of a trimester system, few students decided to re-enrol and few new students registered. Enrolments began to rise later when the economy improved, and when the UT again adopted the semester system and provided better services.

A highly-centralised administrative system at the national level to a large extent has determined the forms and destiny of the UT. The University's existence has depended not only on the UT decision makers, but also on those at senior levels in government, particularly within the DGHE in the Ministry of Education and Culture as well as in agencies performing delegated tasks for the UT (Setijadi, 1992). In its early development, central government agencies might not have understood well the management requirements of the UT, or what infrastructure and resources were needed. They considered the University as another conventional institution. The UT's proposals to develop organisational arrangements to suit its distinctive needs were rejected. It took a long time to convince senior officers in government that the UT needed to have different organisational structures, that it had different staffing and finance needs, and that it required different management styles. This had destructive effects on institutional operations and staff morale in early years. It

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was only fairly recently that such demands were recognised through the approval of the University Statute in 1992.

A more recent example of UT's high dependency on other agencies can be seen in the upgrading of primary-school teachers commissioned by the Directorate General of Primary and Secondary Education in cooperation with the DGHE. Even though the UT had the responsibility for the conduct of teaching at a distance, the two Directorates had different views on aspects of the curriculum, allocation of tutors, the teaching methods used, and the frequency of face-to-face sessions between students and teachers. With the involvement in the teacher upgrading project, the UT has had two types of distance students: regular students and teacher students. Both types of students have demanded different and complicated management arrangements on the part of the UT in terms of teaching and administrative services.

In its early operation, the size of enrolments and diversity of programs offered to a variety of clients inevitably created pressures on the management and operations processes. The situation was further aggravated by the fact that some decisions were made on the basis of rule-of-thumb and trial-and-error principles. Most of the administrators and staff were lacking experience in distance-education management so that decisions were taken on the grounds of what was thought to be the best thing to do (Setijadi, 1992). Consequently, policy making and implementation was a difficult exercise in an industry-like educational institution such as the UT.

Most senior administrators had some experience in academic administration of traditional universities, or other senior



and only very few of them had involvement in distance education. It is obvious that these senior administrators brought into the University their experience in other "cultures" (Clark, 1983), either as academics or as "bureaucrats." In the meantime, junior staff had inadequate training and experience. Despite the UT's industrial characteristics, the University remains a "political institution" (Baldrige, 1971) where conflicts are endemic. In terms of internal politics, for instance, as many staff were not sure about the job description and their duties, they held the belief that the unit in which they worked was the most important, thus often undermining the roles of other units.

The lack of direction and confidence in making decisions often resulted in chaos and uncertainty at the lower levels of the management. The following example illustrates the kinds of problems experienced. Each semester there were around 150,000 grades to be processed through the examination centre. Some 1,500 to 4,000 or 1 to 2.4% of the grades, however, became problems, with students not receiving their grades because their names were not included in the examination list. In terms of the student head count, this number was actually greater, representing 900 to 3,000 students or 3 to 10% of the average total students participating in semester examinations (Iswanto, 1991).

Three factors contributed to these problems. First, some students were careless in filling out the personal data form, and the registration or examination sheet. This contributed around 40% of the problem cases. Second, student data had not been keyed in to the computer file for up to 50% of the cases.

This was clearly an operational problem for which the

institution was responsible. Third, some students were not qualified to take the examination, but they insisted in doing so without meeting the necessary requirements (Iswanto, 1991). Staff in the regional offices tended to tolerate these students, because they were in doubt as to whether the problem may have been caused by the University administration at the central office.

Slow implementation of decisions made at the top level resulted in administrative uncertainties at the operational level. For instance, when the trimester system was introduced in 1986, staff did not anticipate what was going to happen. Decisions seemed to have been taken hastily so that many students were not fully aware of details in changes, and nor were many staff in regional offices. Enrolments projections failed to produce accurate figures, resulting in overestimates for the production of material. The University thus failed to develop teaching and administrative support strategies that were appropriate for the context in which it was required to operate. Many of its operational problems in turn can be traced to the insufficient time given for planning and implementation (UNESCO-ICDE Report, 1990).

#### Summary of Development, 1984 - 1992

Within the eight years of operation from 1984 to 1992, the UT had gone through extensive changes, in response to the needs of its clients. These developments were explained in detail by Professor Setijadi in his Memorandum at the end of his role as the Rektor of the UT (1992).

In the first year, the UT had to accommodate around 60,000 students, a number which far exceeded the government's prediction and the institution's planned capacity. Given only very limited time for planning, a decision was made to implement a simple system of operation, in which rigid procedures and course offerings were applied to the students. With limited facilities and resources, this was a huge task compared to the enrolment process for any other existing institution in the country. At that time, the UT had only around 200 full-time staff.

In the second year of operation, the UT enrolled a total of 75,000 students. Similar problems to those in the first year continued, especially administrative delays and data-processing problems. Apart from that, there was a drastic drop in tutorial attendance, from an average of 80% in the previous year to a mere 25%. Students from the remote areas demanded longer time for registration because of difficulties caused by distance and communication problems. There was a need for the UT to develop a more flexible system for registration.

In the third year, a new operation system was introduced to allow greater flexibility for the students. Registration could be completed throughout the year and examinations were administered three times a year. Individual students were allowed a high degree of freedom in selecting their study units. Student administration became more complicated and required a more sophisticated system and resources. This, however, proved to be a heavy burden for a newly established institution. More delays occurred as students incorrectly

considerable time to deal with by the central administration. At the same time, the government budget for the UT was slashed, forcing the UT to double tuition fees. Consequently, student enrolments dropped dramatically, and so did tutorial attendance held in regional offices. At this time, the number of staff had risen to around 600 people.

In the fourth year, similar problems continued, and student enrolment remained low. Students expressed their dissatisfaction with the lack of services being provided by writing to the UT. Some of them even went further to write to national newspapers. The institution's reputation and credibility were thus called into question. To respond to these problems, the UT policy makers made a decision to decentralise the system through its regional centres. So from this time, registration and the purchase of the course material could be carried out through the regional offices. But even with this decentralisation, students in remote areas were largely unaffected. Delays still took place, and it was much easier for students in remote areas to communicate to the central administration via letters than to the local regional office.

The fifth year saw some further expansion. Decentralisation had ensured the UT's survival as an institution. Student enrolment began to increase again. Cooperation with other agencies was developed to offer new programs of study. The semester system was reintroduced. Some of the first batch of students had managed to survive the hard work of distance study and graduated. In the sixth year, more promising developments occurred, with responsibility for the training of primary school teachers by distance education being

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taken on by the UT. This program, which was initiated in 1989, actually commenced in 1990, after hesitation among educational decision makers over the use of distance education to train teachers. It was expected that over the following ten years or so, there would be around one million primary school teachers trained with a two-year diploma through the UT. This resulted in a marked increase of student enrolments in the UT.

During the seventh and eighth years, the number of student enrolments rose dramatically to more than 180,000, including both regular students and teacher-education students (See: Appendix 7). The training of primary school teachers through the UT had a significant impact on the UT operation. Registration was conducted outside the regular system, through the Bank Rakyat Indonesia (BRI), which offered loan facilities to the teacher students. Examinations were administered at different times from those for the regular UT students. Registration was completed only once a year at the beginning of the academic calendar. This was a more rigid and closed system compared to the higher degree of freedom enjoyed by the traditional UT students. Also the student teachers were required to attend compulsory tutorials held sixteen times throughout a semester. Primary teachers' schools, which offered a three-year pre-service training for primary school teachers at the senior-high-school level, were abolished, and the UT absorbed an additional staff of around 500 people, who were formerly teachers of these schools. Most of them were posted to various regional offices and became involved in upgrading of primary teachers, as tutors and resource people.

In the early 1990s, the introduction of a new legislation and new regulation had important effects on the UT. Particularly important were the "Education Law of 1989" and the "Government Regulation on Higher Education of 1990." In 1991, the "Ministerial Decision Number 0564/U/1991 on Distance Higher Education" was passed, regulating the provision of distance education at the university level. More recently, in late 1992, a statute, which regulates to the UT's mission, goals, and organisational and management structures, was approved by the Minister of Education and Culture. In the same year, the UT successfully drafted its major policies which were translated into details in the "Basic Outline for the Major Development Plan up to the year 2000." All of these legislative and administrative developments strengthened the UT's position, and thus the UT had a more solid base for future growth. In addition to that, a new Rektor was appointed.

Significant achievements occurred within the first eight years of operation, but at the same time there were also problems that required serious attention, as in the long term many of these problems could undermine the UT's credibility. The UT currently recognises that a high priority should be given to providing better services for students, which means that the institution will require a more dedicated and sophisticated operations system (Setijadi, 1992). The UT experience indicates that a complex delivery system posed major problems that were difficult to solve. A compromise was thus seen to be to improve the quality of services in such a way that still would be manageable by the institution. The leadership recognises that it is important for the UT to maintain credibility, and gain support and recognition from the



community.

Politics and government policies played significant roles in the development of UT. From the beginning, political factors helped speed up the opening of the UT. Although some academics may have been aware of the existence of overseas open universities, many of them were sceptical about such institutions and even disagreed with the idea of distance education. Some prominent academics in established Indonesian institutions suspected that such an education was unrealistic for Indonesia and even thought that it would only add to the number of unemployed or under-employed university graduates. Government policies substantially helped maintain the UT's existence, for example, through the primary-school teacher upgrading project.

To its supporters, however, the UT offers a significant contribution to access to and equality of opportunity in university education. The country requires a significant trained work force in order to achieve continued economic and social development. With only 45 traditional institutions, access to higher education has been very competitive. The state higher-education system tends to be elitist, meaning that only a very limited number of population have the opportunity to study in such institutions. Although many private institutions are in operation, the good ones charge extremely high fees. To many people in the lower socio-economic segment, however, this is a very closed system. The UT thus has to meet the need to provide opportunity for people denied access to regular institutions.

## A University Involving "A Network of Participating Institutions"

As already pointed out, the UT's operations system was initially created in such a simple way that the institution could be easily managed. The system which was eventually adopted for its first year of operation was as follows: (1) a uniform curriculum; (2) use of the post office as a delivery point for course materials and for fee administration; (3) use of state higher-education institutions as regional offices; (4) use of word-processor-quality output as camera-ready text for printing; (5) use of Universitas Indonesia's computer system to process registration and examinations; and (6) requesting nationally known professors to write the course materials (Setijadi, 1988:191). There was no time to try out and experiment with the course materials and evaluation instruments for students. Courses were developed by the individual writers rather than course teams. The curriculum in each discipline was agreed upon by a team mostly consisting of professors and senior academic staff from other state higher-learning institutions.

As the UT gained more experience in distance education, it became more mature in understanding its operations system. The "old" system was considered too rigid, providing little flexibility to students in many respects such as with which courses to be taken, times for registration, and times for the completion of courses. It was considered to be systematic and advantageous from the institution's point of view, but disadvantageous from the students' perspective due to the lack

The nature of the UT's management can be described as "a network of participating institutions" (Setijadi, 1988). The varied network of institutions on which the UT depends include its central office and its thirty-two regional offices, the Post Office, the national television service, the national and commercial radio broadcasting, the telecommunication corporation, newspapers and magazines, regional libraries, regional offices of the Ministry of Education and Culture (MOEC), the state higher-education institutions, and other indirectly related agencies such as publishers, booksellers and educational foundations (Setijadi, 1988; UT, 1989). Some of these network members serve the UT within the limits of their major normal responsibilities, such as the Post Office. Others, such as the regular state higher-learning institutions, go beyond their major responsibilities to assist UT, such as in providing staff and facilities to help the UT function well (Setijadi, 1988). Central to the network is the relationship between the central office and its regional centres and between the UT and the participating universities.

Perhaps this system implies some weakness in the single-mode system in involving other agencies. The UT is in a weak position, as it has to depend on other institutions. For example, until now, UT regional offices have been borrowed from local universities, and so have the heads of these offices. Despite the fact that these regional directors are prominent senior academics in regional universities, it is unrealistic for the UT to expect that these regional heads will have a full commitment to the University. As staff members of local institutions, their main job is to work for those local

On the other hand, if the UT were to appoint a

person from the central office to become head of a regional unit, it is likely that the UT would have some difficulty in securing assistance and access to facilities from the local higher-education institution. It is thus a difficult management problem for which to find a satisfactory solution.

Considering its diverse network, the UT requires a management approach that is distinctive from its conventional counterparts. Professor Setijadi (1988) asserts that managing such a diverse network requires frequent meetings and constant communications between the central office and the participating institutions. Often informal agreements are as important as formal ones. Negotiation is important in order to maintain effective cooperation with other institutions. However, in terms of internal organisation, the UT possesses strong bureaucratic features. Many decisions are made by the top level of the administration, and then are referred to faculties and eventually to regional offices for implementation.

A centralised administration system has some drawbacks. The weekly meetings of high-level administrators in the central office serve as the medium for consultation for internal management and monitoring of operations problems. However, because these meetings involve only those from the highest levels of the structure, such as the Rektor and Assistant Rektors, deans, heads of bureaus, centres and units, they are not as effective as they might be. Not all administrative staff know what takes place at the operational level in details. In addition to that, only one annual national meeting is held involving all heads of regional offices. One obvious problem is the implementation of decisions which involve such a diverse network. Not only is effective coordination needed,

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but good communication channels are necessary as well.

Management is crucial in an open university. What goes wrong in one unit can have devastating effect on others, as many activities follow assembly-line procedures. For instance, delays in meeting production deadlines can result in turn in delays in printing, despatch, and eventually in students receiving materials late. Even examinations may have to be delayed, otherwise students may perform badly. Ideally, the UT needs to have its own academics and printing facilities to ensure that production and examination schedules are met. However, this is impossible at this stage.

#### Organisational Structure, Resources and Funding

Being the first and only open university in the country, senior officials in the DGHE initially had no idea of how the UT would work organisationally, and so early Ministerial decisions regarding the UT's structure were based on existing legislation and regulations concerning Indonesian universities in general. As a state-funded university, the UT has to comply with the Government regulations concerning its structure, governance and management systems. This type of structure certainly does not suit the management needs of the UT, so some modification is desirable.

The University is headed by a Rektor, who is assisted by a number of Assistant Rectors (Deputy Vice-Chancellors). Initially, there was only three Assistant Rectors, and a fourth Assistant Rektor has been added recently in response to the UT's expansion. Following the Indonesian traditional university structure, the Assistant Rectors are responsible

respectively for the areas of academic affairs; general administration; operations and student affairs; and cooperation. However, what these Assistant Rectors do is somewhat different from their colleagues in traditional universities. In day-to-day operations, the Rektor is assisted by two bureaus: student and academic administration, and general administration. At the middle level of the hierarchy, there are four Deans heading four faculties. At the operational level, there are program coordinators who are responsible to the Deans for the study programs offered by each of the faculties.

The UT's operations require three centres serving university-wide needs, namely research and community services, examination management, and media production and information centres. These centres are responsible directly to the Rektor. In addition there are other operational units further down the administrative hierarchy that serve university-wide functions and are responsible to the Rektor as well as to Assistant Rectors and heads of bureaus. These deal with areas such as student services and development, registration, and staff development.

A proposal presented to the Ministry of Education and Culture for changes to the structure in order to suit the operations of a distance higher-education institution has been approved only recently. With the new statute approved by the Minister of Education and Culture, the UT now has stronger regulatory foundations and its organisational structure has been designed to fit the needs for an open university to operate well. Apart from having traditional faculties and academic departments, there are now functional units that are



vital to UT operations but not always found in the conventional Indonesian university, such as centres for distribution, examinations, and media production. The more detailed structure is comprised of the following:

(1) Supervisory Council.

The Council comprises community leaders who have interest in fostering education and in solving the problems faced by the UT. The Council members are appointed for at least a four-year term by the Rektor with the approval of the Senate.

(2) Leadership Component: Rektor and Assistant Rectors.

The major responsibility of the Rektor is to execute policies and make regulations based on the Senate decisions. The Rektor, formally appointed by the President for a four-year term and a maximum of eight years, is responsible to the Minister of Education and Culture. In day-to-day activities, the Rektor is assisted by Assistant Rectors.

(3) Senate.

The Senate is the highest representative body in the university community. The Senate formulates policies and have consultative roles, and it is chaired by the Rektor. Memberships of Senate include the professors, the University's top leadership, deans, and staff representatives.

(4) Academic Component.

The academic component in the central office is the four faculties; (a) Faculty of Teacher Training and Education Studies; (b) Faculty of Economics; (c) Faculty of Social and Political Sciences; and (d) Faculty of Mathematics and Natural Sciences.

The roles of the faculties are to develop educational programs, to become involved in research and development in various disciplines and community services, to provide services to students, and to manage the unit itself. Within each faculty, there is a dean and assistant deans, a faculty senate, an administration division, various academic departments, laboratories and studios, and academic members.

The academic component in the region comprises the learning resource units, located in various places, usually attached to the local universities, throughout the country. The functions of the learning resource units are to provide academic services, to administer examinations, to develop cooperation between the University and various regional agencies, and to manage their own business. Within the unit, there are academic members or tutors, support staff and a head of the unit.

(5) Administrative Component: Bureaus.

The functions of bureaus are to be decided by the Minister of Education and Culture with the approval of the Minister for Administrative Reform.

(6) Technical Units include (a) library; (b) computer centre; (c) course publishing centre; (d) multi media production centre; (e) distribution centre; (f) examination centre; and (g) inter-university centre for instructional development.

Despite this relatively simple structure, how the UT actually operates in administrative terms is far more complicated, and internal conflicts among units are inevitable. For example, the overlapping "division of labour" for test development is an interesting example, in which there is conflict as to which unit should be fully responsible. Both faculties and the examination centre have their own academic staff responsible for test development. Generally, the faculties have the responsibility over content and construction or development, and the examination centre has responsibilities for item analysis, item calibration and production. Once there is test-item analysis, there is no need for developing new tests, so there is no point of maintaining test development responsibility in faculties. It is argued that increased efficiency can be achieved by centralising the service in a particular unit. Agreement, however, cannot easily be reached.

In terms of human resources, the UT currently has more than 1500 staff members, approximately 700 of whom are in the central office, and the balance are spread throughout its 32 regional units. Around 800 of the staff are classified as academic and the rest are support staff. More than 800 staff hold first degrees in various disciplines. More than 70 staff have master's degrees, and approximately 20 hold doctorates.

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and only about 250 staff are aged 41 years and above. Staffing poses difficult challenges for leadership preparation.

In terms of physical facilities, the UT has at its headquarters adequate buildings to house its staff and to provide warehouses for storage of print material. Unlike conventional universities which have substantial buildings for classrooms and laboratories, the UT has a total of around 30,000 square meters of buildings for the senior executive officers (called "Rektorat" building), faculties, administration, computer centre, examinations, library, media-production studio, multi-purpose building, warehouse, hostels, and a few others such as the mosque. The regional units generally have no permanent sites. At present, most of them borrow physical facilities from existing universities, or use the former primary teacher-training schools. A major challenge for the UT is to provide adequate facilities for its regional units, so that high-quality services can be provided to students.

In terms of finance, funding for the UT comes from two major sources, namely the government budget and the community. The government budget comprises both routine and development budgets. The community funding includes students' fees and income from the selling of the course materials and other UT products and expertise. Over the nine-year period from 1984 to 1992, the UT budget totalled around 100 billion rupiahs (or approximately AU\$ 70 million). Within that nine-year period, the ratio between government budget and community funds was approximately 1:1. In the coming years, it is expected that more funds will be attracted from the community. Table 6 below

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The percentage of government budget and community

funds received annually by the UT from 1984/1985 to 1991/1992.

Table 6

The Universitas Terbuka Budget, 1984/1985 - 1991/1992

Year	Government Budget		Community Funds	
	Total (million Rp)	%	Total (million Rp)	%
84/85	6,130.92	59	4,328.99	41
85/86	8,718.47	55	7,218.16	45
86/87	3,183.88	34	6,160.00	66
87/88	1,329.73	23	4,256.40	77
88/89	6,564.74	60	4,212.24	40
89/90	2,420.42	42	3,317.66	58
90/91	4,865.95	57	3,563.08	43
91/92	3,892.12	39	6,242.04	61

Source: GBRIP-UT, 1992:15.

Funding arrangements for universities in Indonesia are different from those in Australia and New Zealand. The funding received from the government is based on procedures determined by the DGHE, called the "Planning, Programming Budgeting System." This allocation applies to all state higher-education institutions. In June each year the DGHE releases government policies on educational expenditure as written in "Coordination Program Memorandum," containing the development budget allocation, on which the UT's expenditure proposal is based. All proposals are compiled by the DGHE and then submitted to the Planning Bureau of the Ministry of Education and Culture (MOEC), and subsequently submitted to the National Planning Agency for review.

In November, the DGHE releases the Financial Memorandum on which the UT's proposal has to be revised and written in the form of "work sheet plans" containing plans of activities, targets and costs, later to be reviewed again by the DGHE, Ministry of Finance and the National Planning Agency. This long cycle of processes produces annual expenditure proposals in the forms of "activities filled-in list" for the use of routine budget, and "project filled-in list" for the use of development budget. In February the UT submits these two "lists" for review and formal approval by the Minister of Education and Culture, and in late March the Government releases the approval for development and routine budget allocations (Djalil et al, 1993).

In drawing up the budget proposal the UT has to develop accurate enrolment projections, as it is difficult to change the budget once it has been approved. However, the Ministry also examines the performance indicators of the University in the previous year in order to provide further guidance in determining how much money is to be allocated to the UT. Once the budget is allocated, it is important for the University to endeavour to spend its full allocation, otherwise the following year funding may be slashed to the level of spending of the previous year. A major challenge for the University is to find alternative sources of income, especially when enrolments increase considerably.



## Regional Centres or Learning Resource Units

As a "network of institutions" involving various state universities, and serving a widely-dispersed clientele, regional services play significant roles to help distance students. Regional centres were originally called "Unit Program Belajar Jarak Jauh" (UPBJJ) (See: Appendix 8). In 1992 they were planned to be renamed "Unit Sumber Belajar" (USB) or the learning-resource units, but new policies are being considered as regards the roles and functions of regional offices at the time of writing. There are now 32 regional centres located throughout the country. The number of these centres is expected to double by the year 2000. These regional centres are under the direct organisational supervision of the Rektor, but in their day-to-day technical operations they are guided by the Rektors of participating conventional state institutions. Maintaining good working relationship with these universities, as already noted, is essential for the UT.

Currently the major functions of the regional offices are mainly to provide academic services, administer examinations, develop cooperation with the local agencies, and to manage their own operations. The regional offices may be likened to the front office of the UT. The UT's image thus is very much dependent on the services provided by regional centres. They have to deal with the students directly, and help them with their problems.

The regional office is expected to perform various tasks. First, it acts as an information centre, from which students obtain information regarding administrative matters and academic activities. Second, the office helps students in

handling administrative problems and it administers registration. Third, it administers tutorials, including the preparation of materials for those subjects to be offered for tutorials, the hiring of tutors, organising spaces, and monitoring and reporting the tutorial activities to the central office. Fourth, it handles independent or take-home assignments. Fifth, the office administers examinations, including the allocation of space for examination sessions, selection of test administrators, monitoring and reporting the examinations, and storing data and informing students about examination results. Finally, it has to guide and develop study groups initiated by students.

The UT's system was highly centralised initially, but as the system has evolved, changes were made by decentralising the UT's operation system to regional centres. In August 1987, the regional centres were given broader responsibilities, including responsibilities for registration and distribution of course materials (Setijadi, 1988). More recently, proposals have been developed for giving further autonomy to regional centres, especially in developing and managing their own resources. Regional centres thus would have more authority and freedom to recruit students, organise activities and provide services to students, rather than primarily providing administrative support roles. Under the proposed arrangements, registration can be completed only at the regional office.

Devolution may be necessary, but implementation may take some time. Moreover, intervention by the central administration may still be required in order to help regional units with extremely low enrolments. The central

allocated to the centres. This offer, however, results in complaints from regional offices with very small enrolments, because under this system those regional centres with lower than 200 enrolments will not be able to survive. Further subsidies from the central office is required. Only those centres which has lower than 200 enrolments needed additional assistance from the central administration (ST -- Suara Terbuka, 1992). It should be noted, however, that there are only 14 out of 32 centres which has enrolments under 500. Recently, regional centres generally have accepted the proposal for devolution, despite some disagreements on the level of financial support to be received by them.

As the number of students has grown rapidly, and since they come from different parts of the country, the UT has had to re-examine the roles of the regional offices. Student demographics have changed recently. Student numbers in various areas have fluctuated, so the UT will need to shift some of its resources and concentrate its efforts to new areas where student numbers have increased significantly. The development of learning-resource units is important to improve student services and access to services by students in various regions. There are, however, limitations to the improvements possible, as many of the physical facilities of regional offices are borrowed from existing local state universities. With the financial assistance from the central office, a few of the regional centres have developed their own offices, located in a convenient place within easy access by students, such as the regional centre in Surabaya, East Java.

For an open university with a very large number of students, developing adequate learning-resource centres is essential because of the diversity of the clients and the substantial geographic distances between students and central office. Developing learning-resource centres is essential since otherwise students will have to travel extremely long distances to the central office, or their access to the institution will be limited. From the institution's point of view, the development of regional learning-resource units can be considered as an effective strategy to better serve students, while from the student point of view this means much easier access to the institution. In dual-mode universities, particularly in Australia and New Zealand, there is less need to develop regional centres as distance students have access to their institutions through the on-campus courses and other accessible electronic communications media.

#### Course Development, Instructional System and Study Programs

In classroom-based teaching, lecturers teach students face to face. In distance teaching, in essence the roles of institutional planning and management as a whole is more important than the roles of individual lecturers as those teaching on-campus students in traditional universities. Since students are separated by distance, time and space, the use of media is indispensable, and two-way communications are necessary to initiate and maintain dialogue with students. Despite the significant role of the institution in planning

and instructional systems, there must be teacher(s),

student(s), course(s) or curricula and a contract acknowledging the teaching-learning roles; and distance-teaching materials are presented to students systematically to facilitate learning at a distance (Rumble, 1989a). Any distance-education organisation needs to consider these propositions, and for the UT there are a number of problems to be addressed.

Modelled on the Canadian Open Learning Institute, the UT has adopted a different approach in course development from that of the UKOU. Unlike the UKOU, which has academic staff of its own to develop distance-learning courses, the UT has no senior academic staff who have responsibility for course development. Rather, course authors are contracted professors and senior academics from conventional Indonesian state universities.

The procedures for course development can be explained as follows. A team of experts made up of professors from conventional universities and some senior officials from the Ministry of Education and Culture gather together to draw up ideas about study programs to be offered by UT, and to develop basic outlines for the courses in each program. Once that is done, the academic members of the team, who may eventually write the course, develop the curriculum, setting out curricular and instructional objectives for courses. Although a team approach is used for curriculum development, the writing of courses becomes the full responsibility of individual authors in terms of academic content. UT's junior academic staff serve as editors, responsible for making sure that the course materials are developed following UT formats and standards. Course authors are paid relatively low allowances, and in addition, they receive a small percentage of royalties,

based on the sales of the materials.

Once the course has been written, the next phase is production. Each set of materials is checked by UT academic staff to make sure that it is complete prior to sending to the typists. After typing, materials are read again by UT academic staff for editorial purposes. When the editorial process is completed, courses are printed in camera-ready form before being produced by commercial printers outside the University. The UT has limited printing facilities, capable for producing only smaller-scale test materials and not large-scale course materials. At the UT, print material is still the most important medium of instruction, largely because of economy and flexibility. Audiotapes also are used in some course units to supplement print material.

For the self-contained printed material at UT, each course unit follows a standardised pattern. Most course units have the value of two semester-credit hours. The number of units or semester-credit hours to be taken by students to complete a particular program of the study will be discussed later in this section. A one credit-hour consists of 3 modules, each of which contains approximately 50 pages. The number of pages varies, depending on subjects, with social sciences units generally having more pages than those of natural sciences. Each module has general and specific instructional objectives, several learning activities, feedback, self-assessed exercises, and key answers for exercises. No additional readings are supplied, but students are expected to read newspapers, which cooperate with the UT to publish enrichment materials for UT students weekly.



Television was rarely used in the early stage. During its first year of the UT's operation, there was only one thirty-minute broadcast time available every two weeks, provided by the Government television network for the UT to disseminate its programs, and mainly for public relations. A recent positive development was the increasing amount of broadcast time for the UT programs made available through television, following the introduction of a privately-funded television broadcast station called Televisi Pendidikan Indonesia (TPI), or the Educational Television of Indonesia. The UT gained access twice a week to 25 minutes air time and another 25 minutes each month through the national television network. Television gave variety and flexibility for students to learn from media other than print, although such media was not well integrated with the print material. Certainly it is anticipated that the UT will be able to improve its public relations and gain greater acceptability or recognition by the public via this network. In addition, staff will gain more experience with audio-visual media programs.

The production of television programs also met with difficulties because of the limited number of staff with adequate training in television media for educational purposes, although the UT already had its own television and other audio-visual production facilities, including studios. These problems were further aggravated by the high cost of production for good-quality television programs. Consequently, most programs simply look like normal university lectures on television, as these programs are cheap and easy to produce. The production of the programs usually involves senior academic personnel from other institutions or the UT's own academic

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staff, who write the scripts, and educational technologists, who help in the design and development of the programs. Television programs are still useful and helpful for remote students who have limited access to other instructional resources.

The UT's instructional system has been under some criticism. It is asserted that the system relies too much on students' autonomous learning, with very little institutional support. Little induction is provided, not even in the beginning of the academic year, or for initial enrolments. Interaction and communication is very limited, involving only tutorials twice a semester. Although students are encouraged by the University to develop study groups, there is no systematic approach to help them to do so (See the following section). The problems of distance, communication and transportation facilities are often blamed. There is also an obvious lack of staff capable of helping students. Teacher students, however, are fortunate to enjoy more intensive face-to-face lectures, because their program involves agreements with and support from other agencies, such as the Directorate General of Secondary Education and the DGHE.

The number of study programs offered by UT has developed from twelve at the time of establishment to twenty four in 1989 (Muryono, 1989). The number is highly likely to increase further in the coming years. Study programs offered by UT include both degree and diploma courses (See: Appendix 9). The UT currently offers approximately 500 course units by distance education. Programs are offered using the semester-credit-hour (SCH) system. The degree course, called the "Sarjana" degree,

which is equivalent to the Bachelor's degree, takes a minimum

of four years to finish or 144 - 160 SCH. In theory a student may take a maximum of 24 SCH or less than 12 SCH per semester, depending on academic records in each previous semester. Only those who study full-time and maintain good academic achievement can finish a first degree in four or five years. Most students opt to take half of the maximum SCH, and thus take a longer time to graduate.

The non-degree courses are Diploma II and Diploma III courses offered by the faculties. A regular Diploma III (non-education) program requires at least three years to finish, or 130 - 140 SCH approximately. The Faculty of Education also offers Diploma II and III courses for in-service teachers. To enrol in each of these programs requires a Diploma I and II respectively. These are generally upgrading courses to obtain higher certificates or degrees for in-service teachers and take usually a minimum of one and a half years for diplomas and at least two years for Sarjana degrees.

The academic programs offered by UT are considered essential to national development. Programs such as law and engineering are not offered because legal studies are offered by many of state and private institutions, while engineering, even though crucial to development, requires additional infrastructure for distance teaching that UT cannot yet acquire. Interestingly enough, the UT also offers certificates through its continuing-education programs, such as the certificates for small business enterprise, computers, and English proficiency in cooperation with Cambridge University.

## Student Support System

The separation of teacher and learner in a distance-education environment necessitates the provision of an effective support system for students. Communication and interaction between students and teachers is essential in distance teaching (Holmberg, 1983; Daniel and Marquis, 1979). Many distance-education institutions outside Indonesia employ a variety of approaches such as on-campus and regional courses, summer schools, tutorial classes and guided study groups, teletutorial using telephone conferences, and computer mediated communication, depending on the availability of resources and the institutions' capacities. For the UT, there are, however, a number of limitations that restrict the use of many forms of student support.

The use of modern interactive communication media at the UT has been difficult and even now is hardly possible. In a vast and sparsely-distributed island nation such as Indonesia, with the lack of communications and transportation infrastructure, interactive teaching-learning processes are a luxury. Efforts to provide support services for distance students at the UT have been undertaken in various ways, such as the encouragement for developing study groups among students, provision of tutorials and organising extra-curricular activities.

There is no compulsory requirement for the students to join study groups. However, the UT has always encouraged students to form study groups on their own. Through such a forum, it is expected that students will increase their motivation to learn and help each other. From the

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institution's standpoint, it is much easier to help students in groups rather than individually. The UT offers some assistance to groups in various ways, such as helping the group to obtain a suitable study space, offering tutorial services, helping students to sort out particular learning problems, and providing some additional resources needed by the group. Such support services certainly provide some relief and assistance for students, but most students still feel a lack of orientation to study, and a lack of close communication and interaction with their teachers.

The UT also operates the so-called study-activity centre in the central office and regional offices, in which students receive intensive tutorials. Participating students have to pay for such services, and most of the cost incurred is to pay for tutors and administration fee. Possibly, a few thousand students, many of whom are recent high-school graduates studying on a full-time basis, participate in such an activity, mostly in regional offices located in major population centres. Many UT students also take part in campus-based tutorials (called UT Kampus or campus-based UT) organised by private initiatives, and thus charge high fees. The major challenge for the UT is to provide adequate organised face-to-face support for distance learners. Probably, induction is needed during the initial phase of becoming students, in which students take part in an orientation program about distance learning, learning how to survive in an independent-study situation, how to cope with isolation, and how to develop appropriate study skills. Such an orientation ideally needs to be conducted in regional offices and in other places where there are located large numbers of students.

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Tutorials have been another form of the support services provided by the UT. Their purpose is to assist students in solving their learning difficulties. Tutors are expected to perform this job rather than to give formal lectures on the subjects the students are taking. Students are given the opportunity to ask questions and then they receive feedback from tutors. Tutorials are provided both face to face and at a distance using available mediated communication. Tutorials, however, have met with difficulties and shortcomings. Various studies have reported the difficulties which arise because students may be far removed from locations where tutorials may be offered, and the provision of face-to-face tutorials often has been cost-ineffective. Therefore, the University recognises that expenditure of resources in this area merits a thorough on-going evaluation (Hiola and Moss, 1989).

Certainly cost is not the only problem in providing tutorials. An evaluative study conducted by Motik (1989) has revealed that the tutorial program is ineffective and that the teaching methods and activities has not met students' expectations. Motik (1989) further identifies several factors that contributes to problems, such as time, length and frequency of tutorials, the absence of two-way communication between tutors and students, insufficient planning time allocated by the tutorial management, and the unpreparedness of the students and tutors. Despite these weaknesses, however, students believe that tutorials are of great value to them in overcoming isolation, and helping them in completing academic assignments. Further action is needed to improve the quality of the face-to-face tutorials.

The provision of tutorial support is administered by regional centres. However, there seems to be no clear guidelines for conducting tutorial activities. Different centres have different approaches to tutorial management and instruction, depending on the availability of resources and personnel. The situation results in complaints from and dissatisfaction on the part of the students. For instance, a student survey has indicated that tutors are not adequately prepared; that tutors do not have adequate mastery of the teaching material; and that tutors are unable to solve students' problems and questions satisfactorily (Amin, 1989). The problem of tutorials is complicated by the fact that tutors did not write the teaching materials, or have an involvement in their development. This is a critical feature of an open university, including the UKOU, and it presents a significant contrast to a dual-mode university, where lecturers write the materials, teach the materials and provide face-to-face contact and guidance for distance learners.

Development Plan, 1992 - 2000

Recent Government regulation on higher education has had a positive impact on the UT. State institutions have recently become more autonomous in managing their own affairs than ever before. At the same time, universities are also expected to be more accountable. Institutional planning and management thus become crucial issues for universities.

The recent planning document of the UT identifies a number of problems and constraints that the University will most likely encounter in the foreseeable future, including (1) the



provision of improved student services; (2) the absence of adequate communication facilities; (3) scarce academic resources in various regions; (4) limited funds available from the government; (5) limited test instruments being used; and (6) limited human resources to fill the leadership posts (UT, 1992a). Additionally, some vital areas such as course material development and distribution require urgent attention (Setijadi, 1992). In order to be regarded as a credible institution, the UT needs to make greater efforts and develop new initiatives to cope with these problems.

In May 1992 the Major Policy Guidelines of the UT were published, indicating a response to the need for more effective planning and management in connection with the University's greater autonomy. The Guidelines outlined major strategic policies to be adopted by the UT with regard to its institutional strategic objectives as already pointed out: to accommodate high-school graduates; to manage available academic resources for use throughout Indonesia; to develop cooperation with government and private agencies to gain additional resources; and to provide services and to meet the needs of around 500,000 students (UT, 1992). Also, more consultative forums were called for to contribute to more participative management decisions.

Following that, the Major Development Plan Outline of the UT or the "GBRIP-UT" (Garis Besar Rencana Induk Pengembangan - Universitas Terbuka) was issued in August 1992, setting out directions for UT's development until the year 2000. The eight-year term is a reasonable one for effective planning, given the unpredictable situation beyond the year 2000. The

medium four-year term plan, and into operational annual plans. By the year 2000, it is expected that the UT will be able to improve the quality of its graduates and its institutional efficiency. The means by which these goals can be achieved is through (1) improving efficiency and work productivity; (2) improving the roles of each learning-resource unit; (3) increasing the University's independence in funding; (4) improving the quality of the course materials; (5) varying the study programs offered; and (6) making the University more recognised by the community (UT, 1992a).

The top priority over the period of time from 1992 to 2000 concentrates on three major actions. The first strategy is internal consolidation through the management of growth. The number of students and study programs may be reduced so that better results of consolidation can be achieved. The second strategy is improving the transparency in decision making in order to gain support from staff and students. The third strategy is the use of participative decision making processes. Using this framework, it is expected that the UT can effectively achieve its institutional objectives. From the management standpoint, the pragmatic implication is that more participative management is expected, so that staff members can take part in important decisions and help determine the future direction of the institution.

According to the Development Plan, there are a number of areas of strengths from which the UT can further develop in the future. Among these major items are listed the followings:

- (1) The UT develops programs which are accessible, in terms of cost and distance, by the students living in all parts of Indonesia.
- (2) Academic support is important, so each semester adequate induction to new students must be given in each learning resource unit. This unit plays a vital role in assisting student learning.
- (3) The examination centre has the capability to develop testing instruments for use by the UT itself and other clients as well. Objective testing is developed for semester tests with less than 100 students, while essay-type tests are developed for courses with less than 100 enrolments.
- (4) Planning and control are the responsibility of the UT management with the approval of the University Senate and the assistance of the planning and finance bureaus. Eight-year plans, four-year plans and annual plans, which relate to the others, should be developed.
- (5) Academic administration in the central office acts as the centre for registration and data processing.
- (6) Funding and finance are administered by a university-wide finance bureau.
- (7) Staff development is intended to advance staff careers. As an efficient, instead of a labour-intensive, institution, work productivity should receive greater attention.
- (8) Alumni and students are an important component of the UT. Alumni are expected to contribute to the development of the UT.

- (9) The UT should develop cooperation with other agencies at the national as well as the international level.
- (10) Communication and data processing play a vital role. Communication with students should be improved using various media. Also, data-processing should be made more efficient using standard operating procedures, and involving more widely distributed data processing.
- (11) Public-service activities to raise funds should be developed more effectively in areas in which the UT has the expertise, such as training and education, testing and measurement, course development, educational media, course distribution, distance education, and research.
- (12) Research and community services are parts of the university missions. Research priority is given to institutional research, the use of teaching aids, and other areas of interest related to Indonesia.
- (13) The library is developed as a major resource library for distance education and educational technology, and to support UT course development.
- (14) The UT should make efforts to raise funds from the community and manage the funds for its development.
- (15) The UT is developed to publish course materials for the university level. The quality of the publication should be improved significantly.
- (16) Distribution of the course materials is conducted through the post office, learning-resource units in various regions as well as in bookstores.

The Development Plan also outlines problems and constraints encountered by the UT to achieve these goals, and serious efforts are needed to improve the quality of a number of functional areas already mentioned. The UT needs to recognise that students, now and in the future, are drawn from various parts of the country, and the majority come from lower socio-economic backgrounds. They thus require much more sophisticated services. The UT has limited choice in the use of communication facilities due to high cost, and even the available infrastructure is not always effective. Consideration has to be given to develop communication means that are accessible by students and the institution. For instance, the UT needs to develop better ways of communicating with students via the postal service. In recent times, the use of the facsimile machine also has started to grow.

It will be difficult to find qualified tutors and academic staff, particularly in remote locations. Consequently, alternative means will be important to consider. Perhaps the UT may have to consider sending staff or visits from the central office to remote locations where costs and the number of students can be justified. The Government grant is inadequate to fund operating costs. So the UT will have to find its own solutions for funding its own operations through progressive marketing strategies to attract students and to sell course materials. Consultancies and other technical services also may be offered to other agencies which may need UT expertise in distance education in order to attract more funds.

The use of objective-type optically-scanned tests will reduce the need for alternative test instruments. The UT needs to think about using other instruments to evaluate and provide feedback for students. Technical faults related to the electricity system and the telephone system are important constraints, and even natural disruptions often take place in the UT and its regional units. As these facilities are vital, an adequate back-up system is necessary to ensure that electronic devices do not malfunction.

Currently most staff are young, both in terms of age and also professional experience. Special action needs to be taken to prepare existing staff for leadership positions. There is a lack of understanding among decision makers and the community at large about the UT system, so that little support can be expected from them. It is important to keep the public informed about the existence of the UT and how it works. More extensive campaigning may be needed, and the presentation of the UT lectures and education programs through the national radio and television network may be of advantage for public relations.

Since the University has no permanent facilities for the learning-resource units, it has proved difficult to develop adequate student services. Building its own regional facilities will be an expensive undertaking, but the University needs to be able to provide adequate support of different kinds for its students. While the UT needs to maintain cooperation with regional universities, in the long term, it recognises the need to develop its own learning-resource units that best suit its students' needs, using resources and facilities already

The UT system is sophisticated enough to allow a high degree of flexibility for students to select the number and kinds of courses they wish to pursue, and there is no absolute necessity for enrolled students to buy course materials. Such flexibility obviously demands complexity of services and administration on the part of the institution. Decentralisation is perhaps a good way of overcoming administrative backlog. Devolution of more responsibilities and authority to learning-resource units are required in order to serve students better. And finally, many of the students have a lack of understanding of the registration mechanism. Potential students thus have to be better informed about UT procedures. Visits by University personnel to high schools, companies and other agencies could be of great help in providing information to potential clients. The UT needs to develop better administrative procedures and clearly-written guidelines for students.

In the foreseeable future, the Government has no intention of creating new conventional universities, as priorities are to be given to the secondary education sector. With all its limitations, the UT will continue to exist. It is unlikely that it will ever compete directly with existing universities, public or private, but rather its role will be to complement existing institutions, which have limited capacities to meet demand and provide access for working adults, teachers and high school graduates. No one can be denied access to the UT, as it offers open entry. Students who have no high-school-level qualification can still enrol in the UT through a matriculation procedure. The UT is the only open university in Indonesia to offer open entry and to provide access to higher education with

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adequate quality courses.

Currently, most of the management problems encountered in its early development have been overcome. The UT recognises that it needs now to concentrate more on other matters, such as generating its own resources to reduce its dependence on other institutions and government support, and to improve the quality of services. The publication of the Development Plan Outline was timely, and so future development efforts should refer to these plans. It is now time for the UT to put its effort into consolidation. As the incumbent Rektor says, the UT should begin to analyse critically its strengths, weaknesses, opportunities and threats (Sceprapto, 1992), and the Development Plan has elaborately discussed many of these issues. It is now up to the UT administrators and staff to direct and lead the University to achieve its goals and missions.

#### UT as a Teaching Institution with Industrial-Enterprise Characteristics and Management Cultures

In any distance-teaching university, including the UT, the function of teaching is predominant. In fact, dual-mode institutions started distance teaching as an extended form of traditional teaching. The UKOU began its life in order to provide an opportunity for working adults to undertake university studies using distance-learning methods. Many open universities, particularly in developing nations, enrol a large number of students to expand access to university education.

In classroom-based universities, the role of teacher is dominant. No class or discussion will take place without the

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presence of the teacher. In distance education most of learning processes will be mediated through some form of technology, print as well as broadcast or recorded. While traditional universities basically require good lecturers, lecture halls and equipments which enhance good lectures, distance-teaching universities require complicated teaching approaches and media. Television, radio, video, well-structured written material are just some of the technology commonly used in distance education, including the UT. Some open universities in developed countries employ modern interactive technology, including electronic mail, teleconferences and multi-media material or computer-assisted learning.

Interactive technology is a major challenge for the UT to reach its students over vast distances. Yet the provision of such technology has met with difficulties due to poor communication facilities. Some high-technology experiments, such as telephone conferences, electronic mail and tele-teaching via satellite, have collapsed because of the high cost incurred. Such projects often involved overseas funds and they were discontinued when the contract expired. The use of high technology requires high costs, and consequently higher fees must be received from students. In the future, the demand for interactive technology for distance students is inevitable because of geographic and demographic features of Indonesia. The UT still requires more sophisticated technology to communicate with students, relative to the mainstream open universities of the developed countries, and when alternative media are being considered, the questions of accessibility, economy and practicality need to be met.

Quality in general is a major problem to be addressed by the UT. By quality is meant the quality of the course materials and the student services to facilitate the students learning in order to produce a high-quality output. The UT relies on the print material as the major delivery method and regional services. The course materials, however, have been produced in a relatively short time and are expected to last for at least eight years. Television broadcasts have been used more frequently in recent times and audiotapes are also popular and accessible by students. Yet such programs are considered as complementary rather than being integrated into the printed learning package.

As important as managing distance teaching is the planning and management of the institution itself. Balderston's ideas of the university as a mixture of institution, agency, and enterprise may well describe the management of modern universities including open universities (Balderston, 1975). Students see the UT as an institution which has an authority to offer certificates and degrees, while the government sees it as an agency which receives government funding and implements government policy. The idea of "enterprise" is particularly relevant to the UT administrators.

The former Rektor, Professor Setijadi, declared the UT as a "management university" -- a term coined by Professor Setijadi for use within the UT, meaning that it makes use of both academic and some other resources already available in conventional universities. This theme has been adopted by the UT administrators and staff as the "trade mark" or "corporate culture" of the University. Managing the University through thorough institutional planning, massive marketing efforts,

active development of programs and effective "retailing" (distribution) of course material becomes the dominant thinking of staff and administrators, along with making efforts to best serve the students.

"Marketing" academic materials is a major challenge for the UT in a society where the reading habit is just beginning to develop. Students have no obligation to buy course materials, as they can borrow or buy from their fellow students, or use materials available in regional centres. The course material for each credit hour costs approximately Rp 5,000 (A\$3). So a full-time student needs to spend around Rp 100,000 (A\$ 70) for course material per semester, if he or she decides to buy the material, while tuition fees correspond with the number of credit hour taken by a student, approximately at the same level of the cost of course material per semester-credit hour. Thus, in a country where annual per capita income is only approximately A\$ 800, the cost of studying at the UT is still somewhat expensive, but it is far less expensive than in traditional universities, as UT does not require students to stay on campus. As already noted in Table 6, the sales of the course materials, rather than funding from the government, has contributed greater income for the UT in recent years.

As a newly created institution, the UT had to define its role and secure its position in Indonesian higher education. However, at the present time, there is no guarantee that the UT can be considered as a major academic institution because of the limited academic resources it has. So it was reasonable for the UT to declare itself as a "management university" which distinguishes the UT from other institutions. Even the

use of available resources outside the University provides advantages rather than disadvantages to the resources from which they are taken. For instance, university lecturers invited to write course materials for the UT can benefit from additional income and academic credibility, because the UT publishes the materials.

Another obvious reason for the UT to become a "management university" is that it requires a different approach from a conventional university to its teaching and management structures in order to operate well. UT staff perform different tasks from those in traditional universities. Cooperation with other agencies is essential in order to develop a network of regional centres accessible to students all over the country.

As the Indonesian higher-education system follows a national curriculum standard, the UT can contribute to the provision of the valuable resource of academic textbooks for university students and other consumers. Although the DGHE has developed a national guideline for curriculum and course development, institutions have difficulties in meeting this expectation because of differences in resources and infrastructure. In a country where textbooks are rare, the presence of good-quality UT materials in good print has been warmly welcomed by many in the academic community. Probably the UT has already realised its potential to be the largest publisher of academic writings in the country. The use of national textbooks, such as those produced by the UT, in other institutions is useful in order to help maintain similar standards across different institutions.

For the UT, it has the duty to enrol a large number of students in hundreds of thousands. This is a common phenomenon for an open-university system, particularly in most developing nations. Consequently, the UT has to be an efficient university. The obvious advantages of large enrolments are economies of scale. In traditional universities, large enrolments require substantial resources to serve students, such as staff time, classrooms and laboratory facilities. This is not the case for the UT. It may need additional staff, but the ratio for the additional staff needed for additional students enrolled is much smaller than that for traditional universities. With more than 180,000 students in 1991, and only 1,500 staff, the ratio is certainly much smaller than that in traditional universities, which generally have the ratio of 1 staff for 10 to 15 students. The majority of UT students take around half or more of the maximum semester-credit hour, or around 12 credit hour or more (or at least .5 EFTSU roughly).

An obvious consequence for the UT to become an efficient-oriented open-university enterprise is that stronger industrialised and bureaucratic cultures exist rather than an academic culture (See: Peters, 1983; Baldrige, 1971b). These phenomena are the major characteristics which differentiate an open university such as the UT from a traditional university. Even a small-scale distance-teaching university will tend to have industrial procedures rather than to imitate a conventional university (Snowden and Daniel, 1980). There are obvious various industry-type processes, facilitated by division of labour, specialisation in different tasks, rationalisation and assembly-line production methods. For

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instance, in the UT, staff have to work in an assembly line to pack the examination sets and to prepare the materials ready to be sent to the regional offices. The strong industrial character has a major influence on the character of the UT as a producer of course materials and a certification institution.

A bureaucratic culture springs from the centrally-controlled nature of the University. The UT has a formal hierarchical structure as with other bureaucratic institutions, and in it academic rank as well as competence are recognised. Many important decisions are made in the central office, and then delegated to regional offices. Efficiency is an important issue, and this is made more difficult to achieve as the administrative workload at the UT is seasonal. During the registration period, workload in units such as the computer centre reaches a peak, and then it moves on to the distribution centre. Once the registration period is over and the examinations period begins, high activity then moves on to the examinations centre. Because of this seasonal semester life cycle of the UT, there have been efforts by the management to shift staff from one function or task to another in order to achieve optimal efficiency.

Professor Setijadi emphasises the importance and complexity of the UT as a university involving "a network of participating institutions." The UT involves various agencies and it has numerous regional offices attached to state traditional universities. In fact, these regional offices serve as a replica in regional areas of the UT central office, but are of much smaller size and scale. The central office has to manage these mini campuses to ensure that distance teaching and student services work well. The UT also relies on the

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vital support from agencies ranging from the Post Office to printing companies. This huge network necessitates that the UT operates a very complex anatomical and physiological system. With the limited resources available, the UT makes use of existing resources to develop, so it cannot operate independently.

UT administrators have dual tasks, not only to ensure that there is efficient internal management but that there is also effective maintenance and collaboration with other agencies. Managing such a diverse network requires a sophisticated approach. To be effective, it demands good negotiating skills and persuasion rather than imposing bureaucratic procedures. Other agencies are willing to cooperate with the UT on the grounds that there are mutual advantages through such cooperation. On the other hand, the UT also has to ensure that it gains benefits from such collaboration and that its institutional goals are achieved. There is constant negotiation and balancing so that both parties can work together effectively to achieve their respective goals. There are intriguing questions as to what extent and for how long the UT has to rely on them. The UT will be in difficulty if it breaks away from the network, or if other agencies decide to break away. This is a dilemma for the UT.

Administering huge operation systems in a country as vast and diverse in terms of geography, demography and stages of development as Indonesia poses considerable difficulties. It is difficult for UT policy makers to determine what sort of help is needed by individual students and how services can be best provided and in what forms. There is an obvious

modern communication facilities, and in remote areas. Such circumstance creates difficulties in developing clear policies that can be applied effectively nation-wide. It is thus unrealistic to expect that students can benefit from the UT with the same effectiveness in all areas. It is also unfair to expect those students living in rural areas with no access to additional information to perform at a comparable level to those students living in major cities. Students are expected to use facilities in regional offices or learning resource centres, and this can be a problem in remote places, such as in rural Kalimantan or Ambon, where students may have to travel by bus or boat for a very long time.

#### Concluding Remarks

The UT, as a single-mode distance education institution, has a different philosophical base from most dual-mode institutions, and it differs even from most open universities in developed countries. The philosophical differences can be traced back to the period of the country's independence from the colonial regime. Unlike most colonies of the British Empire, for instance, which gained independence through peaceful and well-prepared processes, the Republic of Indonesia came into existence through the use of force and struggle. This has dominated the thinking of most of the nation's current leaders who were involved in the independence struggle. As independence was not planned, not calculated, not given or well prepared, it is believed that development activities at times can still be achieved without adequate planning.

In the education sector, for example, many developments have occurred without necessarily passing through rigid and proper planning processes. Actions have been taken in response to urgent needs by the society, instead of after long-term consideration. For example, expansion in the primary-education sector took place about two decades ago in response to the rapid increase in population growth during that period. However, the introduction of the family planning program has recently produced successful results and the population growth has decreased in recent times from 2.4 per cent annually in the 1970s to 1.8 per cent in the late 1980s, and the rate is expected to fall in the future (Symon, 1993). Consequently, the number of enrolments in the primary-education sector has gradually dropped.

Some of the primary schools built under Presidential Instruction in the 1970s have become underutilised. At the same time, there is an urgent demand for places in the secondary-education sector. The Government has to deal with this problem, again with inadequate planning procedures. Enrolment in the secondary-education sector is expected to reach its peak early in the next century. The challenge ahead beyond the year 2000 will obviously be the expansion in access to tertiary education, and the UT is expected to meet this challenge.

The UT was created under such philosophies and circumstances. Little time was given to planning. It was complicated further by uncertainty in the beginning, and inadequate provision of funding. But once the decision had been made to establish the University, tough decisions had to

created, despite the significant problems it faced, otherwise the Government's popularity could have suffered. Once the decision to create the UT was made through a Presidential Instruction, concentration of effort was essential to quickly develop the institution and deliver courses by distance education. Unfortunately, senior policy makers and administrators had little idea of how to run an open university. Most had to learn by doing and experimenting, and some students became unlucky victims of the experiment.

When asked about the lack of proper planning, Professor Setijadi, the Foundation Rektor of the UT, frankly admitted that there had been little detailed preparation to create the UT. He said that, if they had had to plan in advance, they may never have had an open university or may have had one only after a very long time. The most important thing for them was "do first, and plan later." Perhaps, they may have had to use some "quick and dirty method" to achieve the goal of creating such an institution (Setijadi, PC, 1993). With all its problems in the beginning, gradually the UT has become a more reliable and credible institution. Again, to use Professor Setijadi's analogy on the UT achievement: "Now we have created a slow but accurate train." This means the UT has to offer services that are manageable by the institution. Building on that platform, further improvement in the quality of services can be undertaken.

Such circumstances can be in marked contrast to those that led to the creation of most other distance-teaching universities. In terms of its legal basis, the UT was created with a weak legal basis, using the Presidential Decision. This

universities, which have been built upon parliamentary legislation. This situation put the UT at some disadvantage and obstructed its early development, particularly in securing adequate funding, in achieving suitable staffing arrangements, and in achieving a suitable organisational structure. Networking with other universities and agencies was essential, but this required frequent negotiation. Without the participation of other institutions, the development of the UT would never have materialised.

Until now the UT has invested only a minimum sum in the development of various media other than the print material. The written material as the major source for student learning had in the beginning been developed with marginal quality. In fact, most of the course writers had had no experience in developing self-contained learning modules for university students. A lot of experience had to be gained "on the job," so the UT had to pass through various mistakes, learn from them, and then improve as time went on.

As a single-mode open university, the UT has problems peculiar to the circumstances of Indonesia as a developing country. These problems are further aggravated by the geographic nature of Indonesia, being the largest archipelago in the world with relatively poor communication infrastructure. Compared to most open universities in the Western World, which extensively employ various media involving television broadcasting, audio-visual media, other interactive communications and computer-assisted learning packages, the UT delivery system may be considered as "primitive", relying mostly on correspondence materials. Despite these weaknesses, the UT has made a significant contribution to the development

of Indonesia, particularly in providing opportunity and access to tertiary education, and the large-scale production of textbooks accessible by UT students and those interested in further learning.

To a large measure, the UT must be regarded as an important and successful experiment in a developing country. It is the only institution within Indonesia to serve the nation-wide population in the country. Other institutions in Indonesia possibly can learn about the provision of distance education from the UT. Although by regulation other institutions can offer academic programs via distance education, until the present time, no campus-based state institution has embarked on such venture. The reasons are presumably that they have inadequate resources and time to develop such programs. In this case the UT can share its experience and collaborate with other universities.

## Chapter 6

### UNIVERSITY OF NEW ENGLAND, AUSTRALIA

This chapter begins with the history and origins of the University of New England (UNE), setting out the early development of UNE and the long stability of its distance-education programs. Following that is the discussion of the development of distance-education system, the impact of recent Federal Government reform, and the restructuring of UNE distance education. Further discussion concentrates on various aspects of UNE distance education such as cost and management; course development, production and delivery; interaction and communication; and recent challenges faced by UNE.

It is argued that as a dual-mode institution UNE remains a traditional university, which has strong academic cultures, although, as any contemporary university, UNE also has recently tended to have become more and more management-oriented. Nevertheless, its distance-education process requires the application of industry-like procedures which are common in all kinds of distance-teaching universities. As a dual-mode institution, UNE has its own inherent strengths and problems as well. It should be noted that the timing of the conduct of the case-study research coincided with a period when UNE underwent major changes and restructuring. Although these changes were partly irrelevant to the aims of the present study, they had an important impact on the finding and analysis of the case study.



## History and Origins

UNE can be regarded as a successful experiment in the decentralisation of Australian higher education. Traditionally, universities in Australia were located in major urban metropolitan areas or state capital cities. UNE, on the other hand, is situated in the small rural town of Armidale which had a population of less than 10,000 at the time of the University's establishment in 1954. Proposals for a University College in northern NSW began in 1878, almost as early as the foundation of Australia's oldest universities (UNE, 1956). However, it was only in the 1920s that the movement for a university-college establishment at Armidale was enhanced by the New State Movement which flourished in northern NSW (Franklin, 1988). In 1934, a Provisional Council for a university college in the north was formed, and in 1935 the Senate of Sydney University approved the establishment of an affiliated college in Armidale. The NSW Cabinet passed the necessary legislation in 1937, and in the following year the New England University College (NEUC) was chartered with its first two Faculties: Arts and Economics (UNE, 1985).

Once the NEUC had been established, there was a further movement to create an autonomous UNE. In 1945, a joint deputation of the Senate of Sydney University and the Advisory Council of the NEUC presented a memorandum to the Minister of Education arguing for the autonomy of UNE (UNE, 1956). In 1953, Act Number 34 of the NSW Parliament provided for the establishment and incorporation of a university in Armidale (UNE, 1985). On 1 February 1954, UNE became autonomous, and the first enrolments of external students commenced in the

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following year. Politics, not the academics, played a significant role in this development.

Teaching externally has been one of UNE's mandates since its inception as an independent institution. External studies was seen to be so important that a separate Department of External Studies (DES) was created apart from existing faculties and departments within the University. According to section 31 of the University Act 1953, the purpose of DES was to provide "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 examination, satisfy the requirements of the University" (UNE, 1956:38).

Earlier, the Sydney University's Professorial Board strongly rejected the idea of providing a mode of study other than traditional internal classroom-based teaching. The Board's objections to external studies were the following:

- (a) External studies are necessarily greatly inferior to internal studies and even with the most carefully organised and well staffed external department so little could be achieved and that so imperfectly that the establishment of external studies cannot be recommended.
- (b) The external systems in other Australian Universities do not provide an example that would be recommended for imitation and do not encourage the view that anything like a true university education even at a lower standard can be provided by this method.
- (c) Indeed, there is a pressing danger that external studies will give the illusion of a University education without the reality. Students will go through the motions of study and believe that they have had a true university education when they have not at that time (Smith, 1979:2).

Although external studies at the university level in Australia commenced at the turn of the century with the foundation of the University of Queensland (UQ), its earlier development as already noted was slow. It took a long lapse of time between the first external studies provision at UQ and the later major development of external teaching at UNE and other institutions. There was strong resistance to unconventional university education from Australia's oldest universities, as indicated by the Sydney University Professorial Board above. Australia's first universities were significantly influenced by "redbrick" universities, which were themselves heavily influenced by Oxford and Cambridge traditions, instead of adopting more egalitarian philosophies of expanding access to higher education like those of American land-grant universities. A similar problem also arose in New Zealand, with some academics being suspicious towards extramural teaching, although New Zealand tended to look to Scotland rather than England, the former having always been rather more democratic.

In the meantime, there was strong public pressure urging the NSW government to improve access to higher education. Sydney University was unwilling to embark on external studies and rejected the idea of replicating existing external-studies schemes already developed in other Australian universities. So, it was left to UNE to take up the opportunity for the new venture. The dual-mode system, in which academics are responsible for both internal and external teaching, was adopted to counter suspicion that distance teaching might lower educational standards. In New Zealand, too, a dual-mode university, was created for such a purpose.

Earlier while the UNE was a college of Sydney University, adult education had become an important part of the university mission. UNE involvement in adult education was strongly influenced by the vision of Dr. Robert Madgwick, a former senior army education officer who was warden of the New England University College from 1947 to 1953, and later became the first Vice-Chancellor of UNE (Nelson, 1985). As early as 1949, a Department of Tutorial Classes, mainly to deal with the training of adults, was established within the NEUC. This was later renamed the Department of Adult Education in 1955, University Extension in 1963 and Continuing Education in 1974. The development of external studies was enhanced not only to promote adult education but also more importantly to upgrade underqualified teachers (Sheath, 1965), and in later years to train other professionals as well. Following the Second World War, there was shortage of graduate teachers in NSW, and further training was needed by many underqualified teachers who worked in remote areas.

As an independent university, located far from urban centres, it was logical for UNE to offer external studies. The immediate population being served by the newly created UNE was far too small for the University to survive. The decision to enrol external students was thus a viable one politically and economically. Additionally, a steady growth in external enrolments was seen as desirable by academic departments to enable a steady increase in staff numbers and consequently more diversified departments (Smith, 1979). At that time, there was strong demand for tertiary courses from those unable to attend conventional classes. The attitudes of some academics were initially resistant to the external mode of study, but the

belief that distance education is of lower quality than conventional education quickly diminished at UNE.

#### Development of Distance-Education System

As a dual-mode university UNE has its distinct characteristics, which are different from traditional and open universities. The integration of internal and external teaching, in the sense that academic staff teach and assess both internal and external students using the same course material and evaluative instruments, is the central feature of UNE distance education. The integration is meant to achieve parity of standards through both modes of learning and teaching process.

External teaching is a significant part of the University's operations. Both internal and external students in theory should receive equal learning opportunities and services from the University, academically and administratively. Teaching is provided by the university to cater for both students, using different modes and methods to suit their different needs. Consequently, the awards received by external students from this dual-mode university are widely recognised. UNE graduates, no matter what mode of study they have taken, are presented with UNE degrees which do not specify whether study was completed internally or externally. There is flexibility in choosing and moving between study modes.

Early policy decisions on which the UNE external-studies scheme was developed in the 1950s and 1960s emphasised the philosophy of achieving parity of standards and maintaining

long time, UNE distance-education policy has not changed to any marked degree. This indicates the resilience of the UNE distance-education approach. From the point of view large-scale industrial approach of open universities, however, it might indicate UNE's conservatism in distance teaching. The External Studies Committee, whose functions were transferred in 1981 to the Academic Advisory Committee, identified the following essential elements of UNE distance education, which are similar to those indicated by Sheath earlier in the 1960s. These elements include the following:

- (1) Both internal and external students are taught and assessed by the same staff.
- (2) Both groups of students study the same courses.
- (3) External students take the same examinations in various locations at the same time as internal students.
- (4) Departmental quotas are imposed to control the number of students enrolled in a subject.
- (5) Residential schools, where prescribed, are compulsory.
- (6) The development of close staff-student relationship is encouraged through residential and weekend schools, visits to students by staff and communication through assignments and correspondence.
- (7) The progress of students is carefully monitored.
- (8) Teaching and administrative responsibilities are separated; the DES has a servicing and facilitating function while academic policy and practice are determined by the teaching staff (UNE, 1982).

These guidelines affect activities in most levels of the organisational structure including at the departmental as well as university levels. For instance, there are differences of academic staff work load, recruitment and assignment among the departments involved in external studies, depending on distance student enrolments. While most of these guidelines still apply, there have also been reviews and changes of these policies to improve the effectiveness of external teaching at UNE.

In 1987 a Committee was set up to review the the DES following the resignation of its Director, Mr. Kevin Smith. Chaired by Professor J. Nalson, Pro Vice-Chancellor of UNE, the Committee comprised both senior academic and administrative members from within UNE; Professor J. Chick, the then Director of University of Queensland's School of External Studies and Continuing Education; and Dr. D. Teather, the then Deputy Principal of Armidale College of Advanced Education (CAE). The principal task of the Committee was to advise the Vice-Chancellor upon some issues relevant at that time in the following terms of reference: (1) future directions of UNE DES, (2) establishment of a consortium with Armidale CAE and relationships with other distance-teaching institutions, (3) organisational structure to support these developments, and (4) advice on the future role of the head of DES (UNE, 1987).

The Committee realised that the DES existed to facilitate the University's major objectives of teaching and research and that the DES played a crucial role in the attainment of these objectives. The Committee identified several key elements of UNE distance education as the following. First, the program

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that are taught and examined by individual departments to both internal and external students. Second, academics are responsible for preparing, writing, teaching the materials and assessing the students. Third, an emphasis is given on regular and varied contacts and interaction between staff and students. Fourth, there is flexibility in the production and revision of teaching material, and the provision of specialist support services to students and academic staff. Fifth, a centralised system of operation and control with a separate DES having a key role is crucial in providing the services referred to above (UNE, 1987). The Committee was reflecting views which had widespread support from staff, as evidenced in the submissions reviewed (Chick, PC, 1993).

The Committee put forward two main advantages of the UNE external-study approach. First, economies can be achieved by having external students taught by the same staff teaching internal students; and the capital stock and infrastructure is readily available for external students when internal students are not in residence. Second, innovation and improvements in teaching in one mode can be readily transferred to the other because of the integration and interaction of both internal and external teaching modes (UNE, 1987). In the meantime, not long after the Committee had reported to the Vice-Chancellor, as required, there were substantial changes in the provision of external studies throughout Australia, following a new Commonwealth government policy on higher education. The Committee recommendations thus were not fully implemented.

In a more recent writing, Chick (1992:36) has attempted to summarise two major features of UNE distance education considered to be of paramount importance as follows:

- (1) Equivalence of standards between the two modes is underwritten by the use of a common curriculum taught by a single, integrated staff, evaluated by means of a single assessment system and leading to identical awards.
- (2) Such development and support services as may be required for teaching in the external mode are handled by a separate, specialized unit, which has substantial administrative responsibilities but does not answer for the program's academic content or quality.

However, these statements should be looked at cautiously. Although many dual-mode institutions share these features, the degree to which they exist varies in one institution to another. Further explanation is thus needed. First, as Chick (1992) also says, there is difficulty in operationalising the concept of equivalent standards between internal and external teaching. Although in theory, internal and external students receive the same quality of instruction which leads to the recognition of the same awards, it is difficult to achieve such an expectation. There is also a question as to whether both students receive an identical education under different circumstances. There does not seem to be a problem in deciding that both internal and external programs are broadly comparable; the difficulties begin to appear when one examines the details, since the circumstances of both students are so different. Although the two may be assessed using similar

examination devices, procedures and grading, it is difficult to compare the quality of educational processes that the two students experience (Chick, 1992). The link between the two always limits experimentation in the external mode, and an obsessive concern with equivalence can be a limiting factor.

The concept of "equivalence of standards" implies an ambivalent meaning. Some see it as an inherent advantage of distance education, in the sense that both internal and external degrees have similar recognition because of the presumed similar quality of instruction and the same academic staff teaching both students. The awards are recognised as those of a traditional university. Only the mode of study distinguishes students. To the critics of the dual-mode university, external teaching is disadvantaged, as it is conducted in the shadow of the conventional campus-based education. It is difficult for a dual-mode university to commit and develop itself to the full benefit of distance students.

Second, there is no agreement among dual-mode institutions as to the extent of administrative responsibilities possessed by the unit responsible for distance students. Some institutions delegate more functions which in turn may produce influence and authority for the unit, than other institutions do. At UNE, there has been major overhaul over the unit to devolve some responsibilities for servicing external students to the faculties. That leaves the distance-education unit with less power in comparison to other Australian DEC's.

At USQ, the DEC may be considered as having a stronger and more influential position. In terms of funding, for example,

In 1991 USQ DEC received AU\$ 4.1 million, compared to only AU\$

3.2 million annual operating budget for UNE Armidale DEC (Chick, 1991a). Unlike UNE, which generally delegates responsibility for course development to individual academics, however, USQ uses a course-team approach, referred to as unit teams. A unit team consists of a group of academic staff supported by instructional and technical experts such as instructional designers and education officers, plus specialists in audio, video, graphics, and computer-managed learning who can be called upon as required (Taylor, 1993). USQ has more than 7,000 external students plus more than 1,000 enrolled full-fee paying external students in overseas countries. USQ has considerably used computer technology, with approximately 100 units of study involving computer-assessed learning programs and computer-managed learning (Taylor, 1993).

The UNE distance-education model has had an important influence on both the national and regional levels. It has helped shape distance-education policies in other institutions in Australia and overseas, particularly in the Pacific regions. UNE helped shape the establishment of Australian and South Pacific External Studies Association (ASPESA), a regional organisation which provides professional links concerning external studies with other institutions within the region. The appointment of Mr. Kevin Smith, the then Director of DES, as a president of ASPESA, and later of ICDE, for instance, indicated recognition of the contribution of UNE to regional and international efforts in distance education.

At the national level, UNE has also contributed the idea of integrating internal and external teaching which has been followed by most institutions later embarking on

former CAE levels, and also in the TAFE sector. When, in 1974, the Karmel Committee was appointed to investigate the feasibility and desirability of a national open university for Australia, the University made submissions to the Committee. The Karmel Report ultimately recommended a network of existing institutions to cater for external studies needs in Australia, rather than establishing a separate new institution on the UKOU model. This was in line with the University's submission on the matter (Smith, 1979).

The Johnson Report (1983) also recognised the benefits of the UNE distance-education model and its contribution on external-studies national policies. Although the report recommended the need for a national policy on the coordination and collaboration of external-studies provision, it also rejected, as the Karmel Report had earlier done, the idea of establishing a national open tertiary institution. Quoting the response of UNE, the report viewed the integrated model as "a unique Australian feature" in university distance education.

#### Impact of Recent Federal Government Reform and Recent Restructuring from DES through DEC to DEOLC

After a long period of stability, UNE has to pass through a number changes due to internal as well as external pressures. Changes in students' demands and Government policies have also influenced the way UNE operates. The University also has had to re-organise itself to respond to recent challenges. All of these have had an important impact on UNE's structure and its distance-education operation. Of particular importance in the recent restructuring at UNE was the requirement imposed by the

Federal government to form a larger university as part of a national reorganisation. So UNE has become, as one academic says, the subject of "management revolution" to achieve efficiency as assumed by DEET.

The consequence of the recent DEET reform has been the absorption of smaller institutions by the UNE to form a larger and "more efficient" university. In NSW, this was enforced and legitimised through the Higher Education (Amalgamation) Act of 1989. In August 1988, prior to the passage of legislation, the Armidale CAE, the Northern Rivers CAE and the (old) UNE entered into an agreement to amalgamate, which took effect from 1989 (UNE, 1989). They were later to be joined by the Orange Agricultural College in 1990. In 1990, under the Higher Education Amalgamation Act 1989, a larger network was formed by merging the former Orange Agricultural College into the system, to become a University College of UNE (UNE, 1991a). Thus UNE developed from a single independent institution to a network university. This has changed again, as a decision was taken by the NSW and Commonwealth Ministers responsible for higher education for the network University to break into two separate universities from 1 January 1994. The period of amalgamation was so brief that it has little relevance for the longer term -- except in so far as the link between UNE and Armidale CAE is concerned.

Until now UNE remains a strong supporter of adult, continuing education and distance education. Distance teaching is undertaken to provide educational opportunities and services to those individuals and groups disadvantaged by geographical isolation, nature of employment, income, race, sex or physical handicaps, while the use of mixed internal and external modes of

course delivery to enrich the educational opportunities to students also is encouraged (UNE, 1989). As a rural university, it is sensible for UNE to consolidate its position as a major distance-education provider. UNE Armidale has around 620 teaching and research staff, and 790 support and administrative staff. Over the period since its beginning, external student enrolments rose from just above 300 in 1955 to approximately 9000 in 1992 (See: Appendix 10). Distance-learning courses have developed from only 2 when external studies started to 59 in 1990 (See: Appendix 11). External students currently are studying more than 500 course units in various disciplines within four faculties (See: Table 7 below).

Table 7  
UNE Armidale External Student Enrolments by Faculty,  
as at 31 March 1991

Faculty	EFTSU	% of Total	Students	% of Total
Arts	1,995	51.6	4,735	52.0
Economics, Business and Law	334	8.7	846	9.3
Education, Nursing and Professional Studies	1,426	36.9	3,180	34.9
Sciences	107	2.8	346	3.8

Source: Chick, 1991



Despite its dual-mode operation, UNE is not distinctively different from conventional Australian universities. It has students with varied interests, academics demanding academic freedom and autonomy, and administrators concerned with checks and balances. On the other hand, there are the Commonwealth and state government and other donors which have their own expectations and their own vested interests in the University. The government and the public demand universities to be responsive to social and economic needs of the country. As a rurally-based university, the public expects that UNE contribute to the needs of the rural people, especially through the provision of its agricultural, rural-science and environmental studies programs. This results in conflicting interests with which the University has to cope.

From the inception of external studies at UNE, a separate directorate, initially called the DES, has been responsible for administering external studies programs, while the teaching departments have been responsible for tuition and the development of the academic content of courses. A separate directorate to take care of external students can be viewed as a mechanism to safeguard the interests of distance students. But often such a directorate can be in a relatively weak position within the institution, being regarded as merely providing services and liaising with academic departments, with academic decision making resting firmly with the teaching departments. At UNE the "old" DES had little influence over course content and how teaching is to be conducted. DES had little authority on imposing quality standards. Its main tasks were enrolment of external students; course material production and delivery; provision of course development advice; and

liaison, counselling and information services.

Despite the fact that from 1955 to 1986 there was very little change in the DES, UNE distance education has recently undergone significant changes. These change coincided with recent Federal government effort to rationalise universities. The White Paper had significant impact on the development of UNE distance education. In particular, it set the criteria for institutions to be designated as DEC, i.e., a current external enrolment above 3000 students, a broad course profile, extensive investment in distance education, integration of external studies into the operation and planning of the institution, a sound commitment to distance education, and a proven record in the production of high quality materials (UNE, 1991b).

When the UNE presented its submission for recognition as a DEC to DEET, it certainly met these criteria and the University considered that it already possessed the required qualities to ensure designation as a DEC. In fact, the pending amalgamation of the Armidale CAE and UNE strengthened the capacity of the new UNE as both institutions had had long involvement in external teaching. So the long-established DES had to change its name to DEC and play new roles to meet the criteria set. But designation as a DEC was important, as the number of external students then contributed approximately two-thirds of the total enrolment. An efficient DEC was expected to be capable of delivering high quality innovative programs using new communication technology as well as traditional media.

As a "political institution" (Baldrige, 1971), UNE has experienced major conflicts, tensions and changes. New policies constantly need to be formulated to cope with contemporary challenges. Recent Government reform on higher education had a significant impact on how UNE operated and on its management. For example, amalgamation with the Armidale CAE produced significant changes to UNE's management, which eventually had impact on distance-education operations. Some senior administrators of the "new" UNE came from the Armidale CAE, bringing with them organisational cultures and values from a relatively small college to a bigger university, and resulting in cultural conflicts within the "new" University.

The current restructuring of DEC was basically a matter of internal reorganisation, and thus it needed to be differentiated from other restructuring with which it coincided, such as UNE's internal reorganisation and external reform initiated by DEET. Designation as a DEC generally need not have implied any changes, except for greater sensitivity to standards of competitors. It is true that recent changes have required UNE distance education to redefine its roles and functions, particularly within the distance-teaching unit.

The recent restructuring of DEC has called for devolution to faculties of a number of services traditionally provided by the Centre, especially those of liaison with external students. Decentralisation owed something to the amalgamation with the Armidale CAE, whose practices were being applied to UNE and, later, to the new management philosophies affecting the system as a whole. Various student-support functions such as enrolment, pre-enrolment guidance, and approval of extensions

faculties.

The chief executive officer or Principal of the "new" UNE Armidale called for more radical changes in order to establish an efficient unit to support the design and delivery of distance-teaching programs. According to the Principal, under the new structures, the Centre would also have the responsibility of coordinating and monitoring the performance of the distance-education programs and involvement in open learning. In the view of the Principal, courses for internal students, whenever appropriate, should also be supplemented with high quality printed materials, computer-assisted instruction and other multi-media packages. The initial proposals distinguished between operational and policy responsibilities; the former were to go, the latter to stay. As a result, DEC had no direct authority over the distance-education program, and no control over resources (Chick, 1991a). The issue was one of the extent to which the two can be separated. Experience elsewhere, such as at Deakin University, indicated discouraging results, because such arrangements often became increasingly inadequate as institution moved into dual-mode operations (Chick, 1991a).

Until the end of 1991, DEC had the responsibility for meeting practically all the services for distance students, with the major exception of academic programs. Following the devolution and the recent restructuring as Distance Education and Open Learning Centre (DEOLC), the Centre now concentrates on the following major areas: instructional design; production of course material (print and non-print) and despatch; quality control; residential school organisation; processing of

international bodies such as DEET and the Commonwealth of Learning (Small, Personal Communication -- PC, 1993).

Change often involves conflict, since as Baldrige (1971) has demonstrated universities have many different interests, with different views and goals. Restructuring at UNE Armidale generated major disagreements among members of the University community. To some people, devolution has caused a resource deficit rather than generated savings, thus producing a result which is contrary to the objective of the change to create a more efficient system. Many people hold the belief that the old DES was a more efficient administrative system, both from the student as well as the institution point of view. One academic even described the change as "change for the sake of change" with ill-defined rationale (Hobbs, PC, 1993). Various senior administrators, on the other hand, insist on the need for change.

Following the devolution, each of the faculties now has responsibility to provide services for its external students in areas such as pre-enrolment advising; pre-admission information; undergraduate and postgraduate admissions; enrolment and enrolment variations; general student liaison; assignment extensions; residential-school exemptions; processing applications for special examinations; and registry. Some functions have been devolved to the central administration, such as to the admission office (despatch of admission forms and information), to the examination office (data input for external enrolments; maintenance of external student data base; and production of assignment labels), to the records and maintenance office (mail receipt and circulation; student file maintenance; and registry), and to the director of

student administration as regards co-ordination of faculty-based enrolments and special services to disabled students.

Devolution has changed dramatically the way distance education operates at UNE. One of the greatest difficulties in running a dual-mode system is that the institution has to balance the considerable tensions which often exists between the interests and demands of internal and external students (Chick, 1991a). Generally this difficulty is further aggravated by the different nature of the two student bodies, the heavy reliance of the institution on industrial processes, and the cultural predisposition within the institution to think of teaching as a classroom activity. The new arrangement has been accorded with a move to user-pays principles, even where no formal devolution has taken place. The impact of such principles is discouraging. For instance, one academic department has tried to save money by reducing type size and the number of pages of printed materials for distance students, being unaware of the adverse consequences of poor legibility.

Attempting the integration of the dual-mode system for administrative purposes may lead to a divergence of standards (Chick, 1991a). Major questions are whether the devolved system can safeguard the quality standards of distance-education programs, and whether effective coordination can be achieved. Within the distance-education unit, there have been major reservations among staff. These staff believe that the new devolved system runs the risk that distance-education programs will be marginalised. This is a real danger since often within a dual-mode university, priority

Attention to some of the main implications underlying recent developments has been drawn by the current Director of the Centre, Professor John Chick. According to the Director, the broad aims of the changes are the following: (1) progressive separation of responsibility for policy development and quality control from direct involvement in production and support functions for distance teaching, (2) transfer of major operational responsibilities to faculties and other central directorates, (3) introduction of user-pays system into the services provided by the Centre, and (4) strengthening the Centre's policy development capacity (Chick, 1992a). These changes may produce some negative consequences initially as they involve the restructuring of complex operations of the distance-education programs.

Three major issues are raised by the current debate about relocating some distance-education functions to the faculties. First, the DEC believes that divesting the Centre's major responsibilities will leave it with insufficient influence to ensure the institution's commitment to distance teaching. Second, there is some doubt within DEC and departments that the reorganisation will improve operational efficiency. The Principal, on the other hand, holds contrary beliefs. Third, many academics fear they may suffer as more and more administrative work and material production are transferred to the teaching departments.



## Cost and Management of Distance Education

Calculating the cost of teaching at a distance in a dual-mode university can be a difficult exercise. Take the cost for heating and lighting in the main campus or in DEC office, as a specific example: in what proportions should such costs be attributed to internal or distance students? As a result of these difficulties, many dual-mode universities do not make clear-cut distinctions in their costing of internal and external teaching.

Unlike in New Zealand, where distance students are funded at .80 of the internal funding level, in Australia, both external and internal students are funded at the same level for each disciplinary group. In 1991, a report on "The Cost of Distance Education at Australian Distance Education Centres" was prepared for DEET (Harman, 1991). Commissioned by the National Distance Education Committee (NDEC), the report came out as interest in the issue heightened after a declaration in 1989 by the Commonwealth of an intention to fund the teaching of external courses at 75% of the level of internal teaching (Harman, 1991).

Despite the fact that this report provides a useful guide as to how much external teaching costs, it does not really capture the complexity of the issues involved or address a number of critical problems. In a later section, the report admits that there are limitations of the survey, such as in explaining differences among institutions regarding discipline mixes, institutional organisation, resource allocation priorities and quality of expenditure data. Other differences

financial model. However, NDEC finally made an important recommendation to DEET that the EFTSU funding for external-mode teaching should remain the same as that for internal-mode teaching in each discipline area.

According to the report, the ratio of costs of external and internal teaching at UNE was 82%, which is the lowest among DECs (See: Table 8 below). This finding suggests that the former may not be cheaper, but rather the latter may be more expensive. In other words, despite the identical level of funding for the two groups of students, external students may be underfunded while internal students are overserviced at the cost of external students.

Table 8

Comparison of Cost between UNE External and Internal EFTSU 1989

	Ex	% of Total	In	% of Total	Total	% Ex/ Total
Salaries (AU\$)	4,166	.54	4,753	.51	--	--
Other Direct Costs (AU\$)	1,497	.19	1,355	.14	--	--
Apportioned Costs (AU\$)	2,044	.27	3,248	.35	--	--
Total Costs (AU\$)	7,707	1.0	9,356	1.0	--	.82
EFTSU	3,034	--	4,366	--	7,400	.41

Adapted from: E. J. Harman, 1991;10-14

Note: Ex = External  
In = Internal

Although UNE has low external teaching costs relative to internal teaching, the low percentage does not correlate with a low dollar cost. In fact, the UNE is one of the DEC's with the highest EFTSU costs in both modes of teaching (Harman, 1991). However, UNE spends relatively less for printing and production of course materials than other DEC's (See: Table 9 for further details).

Table 9  
Distribution of Per EFTSU External Costs at UNE (in AU\$)

Salaries:		
Academic	\$ 3,497	\$ 4,166
Support Staff	\$ 669	
Other Direct Costs:		\$ 1,497
Printing and Copying	\$ 125	
Consumables and Maintenance	\$ 113	
Postage and Phone	\$ 157	
Distance Education Services	\$ 511	
Equipment Depreciation	\$ 591	
Apportioned Costs:		\$ 2,044
Computing	\$ 72	
Library	\$ 351	
Other Academic Services	\$ 208	
Student Services	\$ 65	
Administration and Overheads	\$ 985	
Power and Heating	\$ 363	
Total Costs		\$ 7,707

Adapted from: E. J. Harman, 1991

These figures (Table 9) provide useful guides to the costs of various components for teaching external students. However, they should be interpreted with caution, as there are important differences of cost in external teaching between different academic disciplines. For instance, course units in the arts and humanities, such as in English Literature, cost less than those in the sciences and those requiring a practicum and intensive supervision, such as in nursing and teacher education. Course units with lower enrolments also will cost considerably more than those with large enrolments.

In 1993 the UNE Armidale had a major operating budget of approximately AU\$ 78 million, most of which was spent for academic activities. DEC was allocated approximately AU\$ 1.7 million as part of the academic activities. The proportion of funding spent for DEC was relatively small, as academic staff are based in the teaching departments. Recent devolution of functions has had impact on the reduction of DEC operational funding. In the same year, USQ DEC received more than AU\$ 5 million, although it should be noted that many functional areas of distance-education operations are centralised within the Centre, rather than being devolved to other units such as those at UNE DEC, with the exception for the responsibility for course writing (Hunter, PC, 1993).

Management has become an important term of reference for contemporary Australian universities. Administrators are concerned about costs. Collegiality tends to diminish and, to many academics, universities tend to lose their autonomy. Universities have become more and more management-oriented, and the Government at times may intervene in matters such as what the University should do and how funds are to be spent.

As a dual-mode institution, UNE has a traditional university structure, similar to other Australian universities. The University has a Vice-Chancellor, and a Principal of the Armidale campus, although the structure will change in 1994. In 1993 UNE Armidale had four faculties of Arts; Economics, Business and Law; Education, Nursing and Professional Studies and Sciences. The Academic Board is consulted for various academic decision-making, and to some extent, collegial decision-making is a norm.

When it comes to distance education, however, there are some striking differences from a traditional university management style and decision-making processes. There are apparently more industrial features involved in running distance-education programs, including in a dual-mode university like UNE. Wordprocessing, editing, designing and the whole process of the production and despatch of course material for distance teaching is as important as lecturing for classroom-based teaching. As experience elsewhere indicates, even a small-scale distance-teaching university poses problems similar to that of a large-scale open university rather than that of a traditional university.

Referring to the experience of Athabasca University, a small-scale distance-teaching university in Canada, Snowden and Daniel (1981) argue that managing distance learning requires the creation of a complex and interdependent system that needs constant administrative attention and teamwork. Effective management of classroom learning requires the planning, organising, coordinating and evaluating of activities, but distance-learning systems are more difficult and complex to

The difficulties are as follows. Strategic planning is necessary to ensure effective use of various delivery techniques. Organising thousands of students enrolling in hundreds of different course units requires complex administrative systems. Coordinating course preparation and delivery, and the provision of regional services is also an enormous and costly task. Control over students' learning activities is limited and dependent more on self-motivation than teacher discipline. Effective measurement of student learning is diminished by time, distance and the lack of personal contact (Snowden and Daniel, 1981). UNE thus has the management characteristics of any distance-education system.

However, as with a traditional university with traditional students, UNE shares similar academic cultures to those of a campus-based university. Although collegiality remains in place, such as through the exercise of power of the Academic Board related to academic policies of the University, a managerial culture has become more and more predominant recently. For instance, senior administrators have been trying to force the academic community to amalgamate small departments, and eliminate distance course units with small enrolments in order to achieve a more efficient system.

Elements of academic cultures (collegial, developmental, managerial and negotiating) as identified by Bergquist (1992), are important and to a large extent present in a dual-mode university. At the university level as well as at departmental levels, a great deal of consultation and negotiation is expected on major issues prior to decision making. Developmental culture is welcome, such as in efforts for

achievement in research and scholarship, which is recognised through promotion. The production of external-teaching materials encourages staff to develop skills in writing course materials -- to use Bergquist's term, developmental culture is encouraged in dual-mode universities. The distance-education unit has to liaise with external agencies for a number of purposes. Negotiating culture is essential as the University has to secure funding from the Federal Government through tough negotiation. However, some members of the academic staff still think that they receive inadequate recognition for external teaching, probably because of the absence of necessary university policy to deal with this issue.

#### Course Development and Production

The design, development and delivery of instruction in distance education requires a complex organisation and management, not only in the presentation of the course itself but also in the preparation, development, production, despatch and evaluation of course material, and even in the curriculum-development phase. In the case of UNE distance education, academic staff play critical roles in constructing and developing course material, because of their dual involvement in both internal and external tuition. Academic staff prepare courses, mark assignments, and supervise laboratory and practical work during residential schools and week-end schools. In the past, academics were required to travel to places where there were large enrolments of external students, particularly within NSW, to deliver lectures and conduct tutorials (Sheath, 1965).



To assist academic staff involved in external teaching, the DES published a booklet called "Teaching Externally" (UNE, 1982), which provided guides in most aspects of external studies at UNE, such as course development, course lay-out and scheduling, copyright, assignments, reference material, audio-visual aids and general information related to external studies activities. However, as individual academics are responsible for external teaching, it is difficult to set a standard procedure on how external teaching is to be conducted. There is, however, some common practice. Most courses are offered externally through print material as the main medium of instruction. Residential schools are required in many courses. Students are sometimes supplied with audiotapes or asked to purchase textbooks, when necessary.

Course development begins in the teaching departments interested in offering course units which are presumably in great demand by students. Academic staff within the particular teaching department begin to develop the material in consultation with the head of the department and academic colleagues. Individual course coordinators generally write the course unit, although some units, particularly in the MBA program involves a course-team approach. Once it is written, the coordinator may seek help the distance-education unit regarding the design and development of the material. Further processes require typing of draft and editing the material prior to producing a final copy.

Many academics at UNE believe that, in terms of content, the quality of material for distance teaching is high. However, there is some doubt as to whether the presentation of the material is sufficiently communicative and interactive for

distance students. UNE has been less preoccupied with the physical appearance and design of print materials, compared with some newer Australian distance-teaching universities. Some full-fee paying courses, such as the MBA program, however have high quality in content, design and appearance.

In a dual-mode university, there are sometimes problems associated with the shortness of time available for developing course materials because of the dual functions of academic staff. Another problem related to course material is difficulty in constant revision. When the UNE operation was smaller, constant revision was easier. As UNE distance education has grown, especially in terms of the number of course units offered and total student enrolments, many academics are under considerable pressure so that not much time is available for revision. Perhaps, it is an inherent defect of a larger system (Baker, PC, 1993). However, it seems to be a universal problem of distance-education programs, not only of UNE but also MU and probably elsewhere.

Despite some claims of superiority of the dual-mode system in terms of parity of standards, course development is one possible area of weakness. For instance, distance courses are developed by academics individually. It is sometimes alleged that some distance courses may be derived from the lecture notes for internal students and thus may be considered to be poorly prepared. At UNE, efforts are being made to improve the quality of course presentation through more effective use of scientific principles of course development, instructional technology and the involvement of course design and development specialists.

Instructional design, that is the art and science of designing, developing and evaluating instructional programs, at UNE was fairly recently introduced, starting with the appointment of a course development adviser in 1984. At present there are six instructional designers involved in developing more than 800 course units offered by various academic departments. From the instructional designer's point of view, it could be seen as a late start for UNE because there had been resistance or ignorance from some academic departments (Adams, PC, 1993). In fact, it was not until 1986 that a new section dealing with instructional design and course development was added. Thus it was only recently that this brought a new perspective to developing material for distance education to the University's academic departments.

Instructional designers from DEOLC may be involved in course development on a voluntary user-pays basis. Following devolution, academic departments have greater control over resources to spend for particular purposes. Some departments may allocate some of the resources to serve internal students, who are at their front door, rather than for external students who are far away from the main campus. However, academic departments may decide whether or not to use services provided by the distance-education unit.

The following is some examples of UNE course material for distance students. An educational-administration course unit Ed As 486-14 "Distance Education: Foundations and Theoretical Perspectives" contains a 70-page study guide, and two resource books totalling around 340 pages. The study guide provides students with the introduction and overview of the unit; unit objectives, unit structure, and three modules explaining

various theoretical aspects of distance education. In the study guide students thus are presented with background information on distance education and how to study the material. The study guide also sets out assignments to be completed by students and offers further information on learning resources. The resource book contains various journal articles and book chapters about the subject. These are a useful and helpful source of learning for those students living in remote places or having limited access to on-campus learning resources. The unit is also supplemented with a one-hour interactive radio broadcast.

The MBA 738-1 "Organisational Behaviour" is well-designed in terms of format, layout, and printed material is well-placed in nicely-decorated hardbound folder. Developed for the MBA program, the material is intended for external students, although it is also used by on-campus students. This particular material contains a study guide for the unit and 13 topics to be covered in a term. The MBA program is especially designed using a "trimester" system. The unit study guide explains the unit aims, study resources, academic support, assessment, assignments, contact persons and guidelines for analysing the material, which includes case studies. The 13 topics discuss various aspects of organisational behaviour in management and organisation. Each individual topic usually includes learning objectives, a study guide for each topic, and resource readings. The number of resource readings varies from 2 to 5, and the readings may be as many as 40 to 120 pages, mostly taken from journal articles, book chapters and other scientific reports. At the end of each topic are exercises and

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guide to exercises. That particular unit is also supplemented

with a video program to visualise abstract concepts in order to help student learning.

External students spend most of their time off campus. They study mostly from the written material sent to them by the University at the beginning of the semester. The material generally consists of a study guide and one or more resource books. The study guide provides guidance and directs students to the understanding of key concepts, while the resource book contains material on content and generally includes journal articles, book chapters or other scientific papers. Some courses are supplemented with audio tapes, videos, radio or video conferences. Internal students, on the other hand, participate in conventionally classroom-based lectures and seminars, undertake laboratory work, and are involved in workshops on campus. They spend most of their time at a distance from the university.

Teaching-learning processes do not occur in the same space and time, in the sense that the pupils study individually and independently, while their teachers also work independently to prepare the course material, and mark assignments. Yet there are bridges through the use of media for communication and interaction. Casual interaction among students and teachers, as happens in the classroom situation, is rarely available in distance teaching. That is why the method for presenting and developing course material in distance instruction plays a critical role. The format and development of courses for distance students require a different approach from that for classroom-based students.

External teaching can sometimes be more demanding than internal teaching. Consequently, external teachers may have harder and more complex assignments than their counterparts devoted only to internal teaching. Recently, there have been changes to the kinds of assignments staff perform. For instance, there has been reduction in the length of residential and week-end schools because of the lack of funding, and the possibility of using appropriate technology to communicate and interact with students is being explored. The value of the use of new technology, however, is somewhat ambivalent due to UNE's conservative stance. Many staff still think that the most effective method of communication with distance students is the face-to-face, personal one. Interactive technology is often expensive and this may discourage departments from investing in technology-based material.

#### Delivery of Instruction and Support System

In contrast to conventional teaching, where classroom activities are the central point of instruction, effective distance teaching relies heavily on effective distance delivery methods and an effective support system. In distance instruction, students interact with the media that replaces the teachers' functions in many respects. Media can be in the form of print or audio-visual, one-way or interactive. Consequently, course material has to be well organised to assist distance students learning independently.

The following is an example of course units taught externally. In an education course unit, Ed. SCC 211/214

about 100 students enrolled externally, most of whom are aiming to qualify for the BA degree. In this particular course unit, no residential school is required. Instead, a tele-conference is held, in which students and the lecturer have a discussion at a distance using a telephone line. Around 80% of the distance students enrolled in that unit participate in the conference. Students also are supplied with audiotapes. Many students like tapes because of their flexibility. Evaluation of student progress is based on essay work. Lectures are thus substituted for by audiotapes and conferences. Revision of course material is not a great problem for this course unit, as some of the material on philosophical thought in education is always relevant. It is unnecessary to revise it on an annual basis. Many students found the material stimulating to learn (Hobson, PC, 1991).

There have recently been encouraging development for user-pays courses such as the MBA program. Having well-developed course materials involving better lay-out and design, the program attract large numbers of students. The course includes high-quality print materials and other audio-visual material where necessary. A course team approach, to some extent, has been used. Diversity of quality becomes a kind of paradox in a dual-mode environment. While some user-pays courses are well-developed, many other traditional units offered at a distance have just been developed with marginal quality. Some other distance course units also have been taught by a team of academics rather than an individual unit coordinator, such as units in Geography and Planning.



However, there are still many academic staff who rely considerably on personal contact with students in distance teaching. For example, the course unit English 245-2/345-2 "Old English and Medieval Literature" has a very small number of student enrolments -- only a total 15 internal and external students combined. It is a one-person course unit. This particular course has suffered as the University has become more business-like, and has developed a dislike of course units with small enrolments. Twenty years ago, for external students there was a two-week residential school plus one week-end school for this unit. It was thus possible in the residential school and week-end school to teach the course intensively to cover the whole unit in much the same way as for internal students.

The time allocated for the residential school was gradually reduced to ten days and then to the present six and a half days. So a bargain had to be made by the course coordinator, with the academic department agreeing to a one-week residential school and three separate week-end schools. Funding the week-end schools was not an easy task, as there was an understanding or informal regulation that only when there were twenty-five students or more could week-end schools be held outside Armidale. The unit coordinator thus had to be creative in finding ways to offer the week-end schools.

For this particular course unit, because of the limitations that have been imposed, the coordinator has put much of the material on tapes. Because of the bureaucracy and delay, he made the tapes himself and sends them privately to students. In his view, it is more personalised and encouraging

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to do it that way. The taped material contains "personalised" lectures and communication with students and the material is thus not intended for wider public audience other than students enrolling in that particular course unit. This is an indication the way in which DEC has gradually become less useful to him as a teacher of external students. In this case, the unit coordinator has been able to adjust because it is a smaller course. The structure in DEC is seen as too rigid for his needs, although the previous support provided by the distance-education unit for external teachers and external courses had been very strong (Evans, PC, 1993).

These cases illustrate the diversity of approaches which external teachers employ. This is common in dual-mode universities, where academic staff usually have much greater autonomy in determining the course material and teaching style. In such an academic institution, it is very difficult for the University to instruct individual staff what they should do in order to teach their students. Imposing particular standard guidelines for staff almost inevitably will bring up the question of academic autonomy.

Although the print material is the major medium of instructional delivery, there has been an increasing trend towards using a number of media methods. The use of interactive communication technology for distance education at UNE had been introduced earlier. In 1986, the interactive radio program called "Talking to New England" was initiated to provide interaction and feedback between academic staff and students (Arger, 1989). The two-hour program each week provides encouragement for distance students to participate in

A good example of the use of interactive radio is the inviting of experts from overseas to participate in live radio conferences so that students can listen to the broadcast, interact with staff and enrich their learning experience (Sloper, PC, 1991). Some academic staff also have experimented with more interactive technology, such as tele-conferences for seminars and discussion at a distance to replace residential schools (Hobson, PC, 1991). Evaluation is being undertaken concerning the effectiveness of such media by DEC and the academic staff involved.

Some current communication technology was readily available and accessible by both the institution and students, and is becoming progressively cheaper. Tele-conference technology is relatively cheap, with the only cost being the cost of the telephone call, once the infrastructure has been set up. Experimentation with the use of video conferences for distance education is also under way, indicating how distances between staff or institution and students may be bridged and instruction can be undertaken using mediated technology (UNE, 1990a). This is in line with the UNE vision, where more emphasis is to be given to more technology-oriented delivery of external courses (UNE, 1989).

There had also been, to some extent, an increasing use of audio-visual technology for presenting the material by academic staff (Soliman and Holden, 1988). This raises further questions on the effectiveness and significance of residential schools. Most students whose learning requirements involve the use of interactive communication technology prefer using technology to attending residential schools. Most students think that residential schools are expensive. On the other

hand, most students who have participated in residential schools generally consider them to be useful and important. In the view of many students, residential schools give a valuable on-campus academic experience: interacting with staff and fellow students and having access to library and other learning resources. Students also can socialise with and develop network among themselves (Soliman, PC, 1991).

UNE, as dual-mode universities in general, has no large-scale regional centres as those in open universities. Rather, a centre has been established in the major population centre of Sydney. A network of volunteers, including senior students and alumni, also has been created to help external students in their study. Guidance and counselling services are available to both groups of students. While internal students may have easy access to a counselling service, external students, because of the distance, may obtain counselling less frequently than internal students. Occasionally, there are calls from external students to seek counselling help.

### Interaction and Communication

Interaction and communication play critical roles in the learning success of distance students. As there is no direct classroom interaction to help students with their problems, there must be effective ways of substituting for it. In UNE distance education, residential and week-end schools are an important element of interaction to support distance learning. Similarly at MU, many distance courses require extramural students to attend "vacation courses." Most of these are held

there has been effort to reduce the compulsory residential requirement for students to less than 30% of the distance course units. Alternative interactive media, such as telephone conference, has been used.

Interaction between staff and students are held to reinforce external students' learning, for instance through residential requirements on campus and week-end schools. Interaction is viewed as an essential element of UNE distance education. One reason for introduction of residential schools for UNE external students was to gain acceptance and credibility. UNE recognised that many Australian academics, particularly those from the oldest universities, regarded external studies as inferior and even likely to lower educational standards. Residential schools appeared to overcome some of the problems of distance, communication and interaction between staff and students, and thus the speculation about the lowering of standards could be avoided.

Attendance at residential schools has been an integral part of UNE external teaching scheme for a long time, and is still compulsory for many external students. For such course units only in exceptional cases may students get exemption from residential school attendance. UNE residential school policy has recently been a controversial issue. To their supporters, residential schools are considered significant to enhance learning experience and morale, as students can undertake intensive academic work, make contacts with fellow students and staff, have easy access to the library and other facilities, and experience real academic life on campus. Residential schools are also stimulating for staff. Those who disagree, on

many students have to travel long distances to get to the University campus and reside in Armidale at their own expense, leaving jobs and other commitments.

The way lecturers conduct residential schools varies from one lecturer to another. In a biological-science unit, for instance, a residential school is required in the beginning of each academic year, in which students receive orientation about what they should do during the rest of the academic year. Students also are required to complete substantial practical work so that they can perform other practical work later when they have to work independently.

Another typical residential school can be described as follows. In a course unit Ed As 578-14 "Economic Thinking in Education," distance students attended a three-day residential course in Winter. The course begins with lectures by the unit coordinator. Following that there were intense discussion between the coordinator and students and among students themselves. Enthusiastic discussion even continued during the coffee break. At the same time, both students and the unit coordinator could share their professional experience. So the residential course was not simply a social gathering. The course was very intensive, involving interactive discussion and lectures the whole day, while students were required to complete further work on assignments and projects in the evening. It provided students with intellectual stimulation and experience, as well as access to a wide variety of academic resources.

The use of compulsory residential schools for external students, however, poses questions of the extent to which these learners are really distant or separated from their

teachers and institution. It even confronts the philosophical foundation of distance education, where students are at a distance from the teacher. While the early forms of correspondence education required no face-to-face seminars and lectures, the UNE distance education introduced compulsory residential requirements for all distance students for a few weeks each year. This kind of arrangement had a major influence on more recent distance-education institutions, including the UKOU, which asks its students to attend summer schools to be held on campus (Smith, 1979).

Historically, at UNE, all external courses required students to attend intensive residential classes, and for many years compulsory residential schools have been a major characteristic of UNE distance education. Even now approximately 70% of distance-education course units have a residential requirement. Many courses or units still insist on external student attendance at residential schools; some others do not, or the activity is replaced by other means of interactive communication. Further, many courses have reduced the length of residential periods. The recent introduction of interactive communication technology at UNE has the potential to reduce significantly the requirements for residential-school attendance. Given the provision of well-designed learning materials, a systematic study guide, appropriate mediating technology and adequate support services, distance students can obviously learn effectively without the requirements for intensive face-to-face teaching on campus.

The designation of only eight DEC's throughout Australia poses critical questions of the feasibility and viability of residential requirements for external students, particularly



those from the remote areas and from other states, or even from overseas. Data from a recent study on Australian distance students' decision-making for enrolment as regards on-campus requirements throws light on this issue. The researchers found that most students (80%) had knowledge of on-campus requirements when making their decision to study. Interestingly, most students (60%) also indicated that the on-campus requirement was not influential in their decision to undertake the course. Students took the course primarily because they had interest (Herrmann, Cameron and Davidson, 1991). UNE has the largest distance-student enrolment of all Australian DEC's, despite the residential requirements. Many students probably also consider the reputation and status of UNE as a distance-teaching university, although no study has yet been undertaken to verify this.

The researchers recommended that the needs of distance students in remote areas should be considered by distance-education providers in ways that can benefit students effectively when they come to the main campus for a short period of time. For instance, on-campus activities should be conducted earlier rather than later in the academic year or semester. Consideration should be given to holding locally based activities using facilities available in local TAFE colleges and universities. And there is also a need to analyse on-campus activities to identify the components that might be dealt with effectively using current technology and peer support network (Herrmann, Cameron and Davidson, 1991).

These are universal suggestions which apply in most DEC's, and UNE no doubt will consider them seriously. A short period of residential requirements in the beginning of the course

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would save time and costs for students. It would also provide students with the necessary induction and orientation about learning at a distance. Students can thus be expected to be better prepared for independent learning. The use of local facilities is sensible to ensure that resources are effectively used; it also could reduce the costs to the institution in providing additional facilities. In addition, students would have access to better resources without going to the main campus.

This strategy, however, may create some problems for the institutions involved, as use of resources by distance-education students may limit their use by students at the local institution. Cooperation and coordination among institutions in a spirit of good will is necessary for such strategies to work. Finally, when there is available technology and adequate support services for remote students, learning can proceed effectively with limited or even no residential requirements.

#### Recent Critical Challenges

Recent government rationalisation in distance education has had important consequences for UNE. Deregulation of distance education is taking place in many countries. The UNE, as are its counterparts in New Zealand and Indonesia, is faced with major challenges that need to be addressed seriously in order to survive in a more deregulated environment. Although the New England model has been effectively in place for many years, it has increasingly been challenged in terms of management style, especially as to whether to have centralised

or decentralised services, the need for appropriate funding, quality control and the response to open-learning challenges (Chick, 1991). Efforts should thus be made to respond to these issues.

Many distance-teaching universities are wrestling with the issue of whether to have centralised or decentralised services in order to better serve the needs of their distance students. The recent experience of decentralisation at UNE has been seen by some people, staff as well students, as leading towards the deterioration of the quality of services for external students. Some people also blame deterioration of services on government rationalisation, institutional amalgamation and reduction of funding that coincide with the change. The results have been frustrating for students, who often are not well-informed about changes taking place on the main campus. Thus many students are often confused with simple problems, such as making enquiries, or finding out where they should go for particular help.

Although theoretically distance students should receive the same quality of services as on-campus students, in reality the needs of the former are often given less priority than the latter. For example, internal students have easy access to the teacher. They can just knock at the door and then discuss with the teacher problems with which they have difficulties. This is impossible for external students. Even with the mediation of modern interactive technology such as electronic mail and facsimile, immediate feedback is improbable as students are separated from the teacher.

In November 1992, the UNE Armidale Student Association conducted a survey to establish the views and opinions of external students regarding external studies (UNE, 1993). It is important to note that this survey came in the midst of decentralisation. The survey revealed important findings. The majority of students were satisfied with the access to library resources. Most students (60%) felt fairly happy with the availability of teaching staff by telephone. Some students (around 20% of them) received materials late and this was a major problem for them. The majority of students (around 60%) considered that residential schools were worth attending. This survey provided important information both for senior administrators and academic staff on a number of topics that need special consideration.

If effective decentralisation is to occur, there are important questions to be addressed concerning what functions are to be transferred from DEC to other administrative units or faculties. Great care needs to be taken, as the provision of support services has significant consequences for external students. Support services for distance students are an integral part of the educational process with a direct bearing on outcomes, such as completion rates (Chick, 1991).

Under a devolved environment, the distance-education unit is put into an even more difficult position. With many of functional services traditionally provided by DES devolved to the faculties and subsequently to the teaching departments, there can be a negative consequence in that faculties may allocate funding for external teaching for other purposes at a time of budget restraint suffered by the University. It can be

distance students when academics are overloaded with work related to both internal and external students.

According to Harman's investigation, external teaching at UNE costs around 82% of the cost of internal teaching (Harman, 1991). This has to change if UNE is to provide quality services for external students. The current Director of DEOLC, Professor Chick, has envisaged that among the issues that need to be given attention are those of appropriate funding levels, ways in which a fee-for-service system might operate and means of safeguarding standards (Chick, 1991).

Consequently, from 1992 onwards, funding for DEC has been on a fee-for-service basis. Ideally cost centres should spend more for external teaching, but they differ considerably in terms of money they spend on external-student services. Those cost centres with deficits tend to even spend less for external teaching. Perhaps there should be a particular mechanism or university policy to ensure that external teaching is funded at the appropriate level. Another alternative is to seek commercial opportunities in order to attract additional funding from various sources to improve the quality of external teaching.

UNE appears to have a major institutional problem in terms of quality standards. As the responsibility of course development rests with individual academic staff, the quality of teaching material is patchy. Some course units have been well-developed, with provision of interaction and two-way communication. A few of them, on the other hand, are marginal and even of appalling quality. Something has to be done, as teaching material is the major learning resource for students because of the limited contacts with the teacher.

The problem of quality control is further complicated by the fact that external teaching is underfunded. Many departments are under increasing pressures to cut down the length of residential and week-end schools, without any adequate substitute for them. Course units with small enrolments suffer significantly, and the central administration even encourages departments to drop such units. Under such circumstances, print material is becoming even more crucial as a medium of transferring knowledge to students. When face-to-face interaction is limited, the print should speak more interactively and communicatively with students. There should be a deliberate policy to formalise quality control procedures for external teaching material (Chick, 1991).

The recent open-learning initiatives in Australia have had an important bearing on distance education. Although such initiatives have been based on the experience of distance education, it now becomes more difficult to determine relationships between the two. In fact, they are increasingly becoming two different things. In practice, the increased deregulation of higher education may allow institutions with distance-education experience to offer open-learning services in order to attract new markets, thus bypassing the DEC system (Chick, 1991). Cutting costs in open-learning services may have the consequence of decreasing quality standards and student support. Two main options are available to deal with the problem -- either developing outreach centres, or using new technologies. While the former may divert resources from campus-based activities, the latter may be more viable and inevitable (Chick, 1991).

Earlier there were problems related to network or campus function as regards the provision of distance education. As UNE is considering its de-amalgamated future, and is about to return to a campus rather than a network university from the beginning of 1994, the issue is becoming less relevant to discuss.

### Strengths and Problems of the Dual-Mode System

The dual-mode system is an "older" form of university distance education than open universities. Being created during the era of "elite" university education, UNE attempted to develop external studies within the framework of the extended classroom. Involving a non-traditional approach to university education, the idea of distance education was considered to be somewhat bizarre in the early years, but soon it was more generally accepted by the academic community and the public. As a dual-mode university, UNE has a number of innate characteristics, distinctive strengths and inherent problems, which will be analysed in this section.

First, as already mentioned, integration of external and internal teaching is the central feature of UNE distance education, in which the same staff teach and assess the same course to achieve the same standards (See: Smith, 1979; Campion and Kelly, 1988). On the positive side, the integration of internal and external teaching allows for the transfer of experience between the two modes of teaching. The involvement of academic staff in teaching externally as part of their duties requires them to prepare course material for off-campus students. In the future, once the decision to offer a course



externally has been made by the academic department.

Another positive consequence of an integrated system is that staff gain significant input from the professional experience of external students, most of whom are working adults. For instance, the external nursing course has enabled academics in the School of Health to know more about recent restructuring in the health-care system, and thus helping in curriculum development. The course coordinator learns from student nurses about a need for computing skills, so a computer course for nursing students has been developed based on distance students' input (Courtney, PC, 1993). This experience also can be readily transferred to internal students. In return, external students also receive intellectual stimulation from staff who share new ideas to enrich their knowledge.

Additionally, the integrated system encourages development of varied teaching and course-writing skills. Open-university staff may not have obligations to teach face to face, as such institutions have no internal students. Thus an open university, such as the UKOU, may provide less excuse for academics to never come to campus each, and there is less collegial relationships, particularly in terms of the writing of course material. UKOU academics tend to work individually, but they can work with the course team when needs arise (Pearson, PC, 1993). Compared with academic staff in traditional institutions, lecturers in dual-mode universities have greater skills in writing and developing instructional material, as they have to prepare such material for distance students.

On the other hand, the distance-education programs might be considered by some people as an appendix to the existing on-campus programs, and consequently academic staff may be burdened with additional workload. There is a strong belief among academics and administrators in many Australian institutions that a university must have internal students. Some institutions may see distance-education programs as a means of expanding EFTSU in order to attract more funding from the Government. Many academics enjoy teaching externally, although when it comes to the preparation of teaching material, they have to spend considerable time. They have to write and develop the teaching material for distance students, read and mark their assignments, and hold residential schools during internal students' vacation time. Compared to those teaching in a traditional university with on-campus students only, external teachers have little free time and opportunity for research, scholarly activities, promotion and even vacations (Hobbs, PC, 1993).

Second, despite the integration of both teaching modes, a separate unit has been created specifically to provide the necessary administration and services for external students. This is a common pattern followed by dual-mode universities. Deakin University in Victoria can be considered to be an exception, as it attempts to integrate both teaching and services of both internal and distance students. There has been major debate on this issue. Recent restructuring at UNE also is an attempt to integrate university services for both internal and external students. This is in line with the issue of convergence between distance and campus-based education (Kelly and Smith, 1987), earlier pointed out in the thesis.

Some believe that if both systems can be perceived as moving towards becoming open-learning systems, the boundaries thus are becoming blurred, and so perhaps, there is little need to distinguish internal and external students in terms of the provision and administration of services.

While UNE has adopted the policy that external studies are considered a part of its normal teaching activities, its administration is carried out separately. The separation is understandable as distance education requires different operations from on-campus education. Operating a distance-education program involves routine but complex activities, with most business reaching a peak at the beginning of the academic year. The intensity of these activities diminishes, once they are well handled from the beginning, when students receive the material and begin studying independently as they must continue throughout the academic year.

However, under such a structure, the UNE suffers some disadvantages in having a separate distance-education unit with little decision-making power at the university-wide level to serve the needs of distance students. The unit only has servicing functions, but has little influence on most university-wide academic decisions. In a dual-mode operation, when the number of distance students was small, it was sensible to set up a department exclusively dealing with external students' needs. However, with increasing external-student enrolments, a directorate which provides university-wide services both without decision-making power at the university level can result in inability to defend the interests of and provide adequate services for external students, particularly when there is little understanding from some academic

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departments as to how the distance-education system works.

Third, in line with theories of interaction and communication in distance education (See: Baath, 1982; Daniel and Marquis, 1979; Holmberg, 1983, 1985), UNE emphasises the significant roles of these two elements in distance education. Unlike in UT, interaction between students and staff at UNE is considered to be essential to help distance students learn and overcome the problem of isolation. External students can feel they are being forgotten, with no one being available for immediate contact and consultation. Human link, rather than link simply through the course materials, is considered as a major strength of UNE distance education (Whalley, PC, 1991).

Although on-campus contact for distance students can be useful, there may be some danger of relying too much on such a requirement. Academic staff may concentrate too much effort for this purpose, and consequently they may lack the motivation to develop good-quality print material from the instructional-design point of view. Some academics tend to think that the material can be well covered during the period of residential schools. Of course, other factors such as the time for preparation and funding may also contribute to the quality of the course material. The challenge for the dual-mode university is to make sure that one effort is not undertaken at the expense of another.

Personalised and mediated contact between students and staff involves various communication means such as letters, telephone, and more recently facsimile and teleconferences. Mediated communication technology is now becoming much more economically viable and accessible. Such technology can benefit both internal and external students. For instance,

seminars and discussions for internal students can be extended to external students, or vice versa. If this can happen without neglecting the needs and learning styles of both kinds of students, economies can well be achieved. The problem of technology usually relates to access by students, the willingness of an institution to invest, the costs and resource-allocation priorities. Staff time to deal with external students can thus be reduced so that staff can devote more time to other university functions, such as research and community services.

Fourth, strong academic cultures characteristic of a traditional university generally remain in place in a dual-mode system (See: Bergquist, 1992; Clark, 1983; Meek, 1984), despite the necessary requirements for the application of industrial principles in distance education. Compared with a single-mode university, such as the UKOU or UT, which some see as being sterile, UNE looks like a normal university with internal students, classrooms, laboratories and libraries. There is an obvious presence of a normal campus life. Staff come to campus practically every day to teach and do other university-related businesses. UNE has an environment and intellectual climate that encourages academics to teach.

The presence of strong academic cultures has an important influence on the operation of a dual-mode university. As Clark (1983) has mentioned, the key elements of academic organisation include work, belief and authority. Academic activities are divided in two basic ways: by discipline and by enterprise. The culture of a particular discipline even may include academic heroes and idols, so it is not uncommon for a particular department to have portraits of prominent scholars in

the field, or of the founder of the department. This may be difficult to understand and to sense, but such a culture exists, including at UNE. The culture of enterprise may be associated with the organisational saga of the university. Academic departments, as already noted, have important influence and power over academic decision making on a wide range of issues such as staff appointment, student admission for higher degrees, research, scholarships and development of academic programs and course units. In turn, their views on such matters are influenced by beliefs about universities in general and about their particular institution.

But the university is a very complex system (Baldrige, 1971a), since, apart from the presence of academic cultures, it also displays a strong bureaucratic structure, such as that clearly exhibited in the registry office. The university is also a political institution where power and influence are also important in most decision-making processes. Collegiality still persists, despite the fact that it has increasingly been challenged by management cultures, which emphasise the values of enterprise (Balderston, 1975). Bergquist's (1992) four cultures of the academy (collegial, managerial, developmental, and negotiating) clearly exist, but with the managerial culture is becoming more and more dominant in all aspects of the university's life.

However, a visit to the distance-education unit (and the printery) can well draw attention to the image of UNE as an industrial producer of academic materials, but on a much smaller scale than in an open university (See: Peters, 1983). Staff specialise in tasks such as wordprocessing, editing, designing the material and developing graphics (division of

labour). Course production in DEOLC follows assembly-line procedures. The draft has to be typed first before it goes through further processes. Nevertheless, such industrial processes are only limited within that particular unit, and so an industrial culture at UNE is not as visible and dominant as that in an open university such as UT.

Fifth, UNE as a dual-mode university allows for flexibility in the development of courses by individual academics over a short period of time. Academic departments have major responsibility regarding academic programs. Individual academics have a high degree of freedom in determining what to teach and how to present the material to distance students. DEOLC provides the preparation, production and consultancy services for instructional design. As already noted, control over the content of the course remains with the academics. However, with individual academics being effectively responsible for external course units, to some degree, UNE seems to have an institutional problem in course development associated with a lack of rigid course-team procedures and a lack of quality control.

UNE faces a number of major problems in maintaining university-wide quality control over course material. For instance, the quality of course delivery has been described by one UNE Professor as "patchy." While some courses are well-developed and team-taught, at the other extreme end, however, the quality of some courses is appalling. "Bad" courses for external students may involve the virtual transfer of lecture notes for internal students, and such materials generally are neither communicative nor interactive (Pearson,



quality, but the key questions are how is this to be undertaken and who should be responsible. The University needs to consider developing clear policy on this issue to safeguard the quality of courses for external students. Otherwise, external students will suffer considerably, and this may ultimately lead to attrition.

Finally, as a dual-mode university, UNE has the opportunity and resources to enable students to undertake mixed modes of study, and eventually to develop an open-learning system (See: Johnson, 1990). In a mixed-mode system, students have greater freedom and flexibility to mix different study modes and select on- as well as off-campus course units to suit their circumstances. This leads to realisation of key open-learning concepts that is now gaining popularity. Essentially, open learning leads to provision of opportunity to learn at the university level without having restrictions of job or family commitments, not to mention those of time and space.

Open learning is a much broader concept than distance education, even though the former builds upon the experience of the latter. Open learning, as a concept, provides for student openness in its widest possible sense, such as in access, absence of enrolment requirements, choice of study modes, pacing, length of time, and place to learn. It is characterised by high flexibility, significant innovation, a strong technological base, and the provision of support services to enhance students' learning at their own choice. To use the words of Professor Richard Johnson (a prominent Australian distance-education scholar), open learning "is more an approach than a particular technique" (Johnson, 1990). The

University is also in a better position to make use of the available human as well as other resources throughout the year.

At the same time, there are problems that require serious attention. For instance, there is an obvious lack of standardised methods and procedures for distance teaching. The consequence of devolving academic responsibility to teaching departments and individual academics is that they have freedom in determining the approach to be used in distance teaching; thus the way they teach varies from one department or lecturer to another. Few academics employ technology-based distance-teaching techniques. Some use interactive study guides to replace the face-to-face component. Many rely on residential schools to transfer the learning material to the students. DEOLC is in a weak position to impose standardised procedures, let alone quality control, of distance teaching material and methodologies. The problem of imposing standard procedures may be viewed from the academic perspective as the intervention of academic autonomy.

Distance teaching can be easily disadvantaged, as staff concentrate too much effort on internal students whom they face every day. According to Harman's study, distance teaching in most Australian DEC's is generally underfunded (Harman, 1991). It should be noted that costing in a dual-mode university can be a difficult exercise, as there is no clear basis for separating costs of internal and external teaching, and for arguing that external teaching should be funded at a lower level than internal programs. Many institutions do not distinguish the two in terms of costing.

## Concluding Remarks

Although external teaching at the UNE began only in 1955, the history of the University dates back to 1938 when it was founded as a university college of the University of Sydney. During the long period of time since its inception, the UNE has passed through a number of metamorphoses due to various pressures. UNE distance education, too, has been through various changes. Some old-fashioned elements have been removed or reduced, and new ones have been introduced, in response to current needs and availability of new technologies. Despite these changes, there remain basic characteristics of UNE distance education which distinguish it from other practice, notably in larger and more fashionable open universities in recent times.

There have been tremendous changes in the field of distance education throughout the world for the past two or three decades. Distance education has flourished, not only in terms of institutions but also the range of technology being used and the quality of teaching and services for distance students. One interesting observation is that despite the changes, the New England Model has survived very well. It has become a resilient and distinctive model, whose features other institutions within Australia as well as overseas have imitated.

As a pioneering dual-mode institution, the UNE tends to be more conservative than more recently created distance-education providers in Australia. Although some of its academic staff think that modern communication technology will help the development of distance education, many of them feel that the

current practices at UNE still constitute a good way of offering distance education. They believe that print material remains the dominant medium of instruction and that face-to-face contacts are important.

This raises the fundamental question as to whether face-to-face communication is an important element of distance education. Those who argue that this is not really distance education in the 1990s see the UNE system as a heritage of the 1950s. Opinions vary on this issue. Some people believe that face-to-face interaction is essential to provide intellectual stimulation for students. Others think that media can effectively replace on-campus interaction.

As a dual-mode university, UNE has the management style of a traditional university, while at the same it attempts to meet the needs of its distance students, which require industry-style services. Serving the two different groups of students has some bearing upon the management cultures of the university. As a traditional institution, UNE has adopted a collegial approach to academic decision making. It is obvious that UNE has strong academic cultures. On the other hand, when it comes to the business of distance teaching, the presence of a more rigid industrial system is required. For instance, academic staff have to meet deadlines for the submission and production of teaching materials to make sure that they are received by students on time.

Many of the characteristics, strengths and weaknesses of UNE as a dual-mode university are also possessed by MU (See Chapter 6). The two have problems of similar nature such as quality standards, course development, conflicts between internal and external teaching, and little recognition of

overloaded academic staff teaching externally. The two can thus pursue common solution through sharing of experience, closer cooperation and collaboration.

Teaching external students poses problems of a different nature from internal teaching. Distance students are not only separated geographically but also psychologically. Access to staff is a major challenge for external students. Although they are working adults who have considerable life experience and are supposed to be able to learn independently and autonomously, external students still need training and guidance when they deal with academic matters. As a distance-teaching university, UNE has to ensure that the interests of external students are met, and that students can survive through the rigid discipline of independent learning demanded by distance education.

## Chapter 7

### MASSEY UNIVERSITY, NEW ZEALAND

The purpose of this chapter is to shed more light on a dual-mode university which has been modelled on UNE (University of New England). The case study begins with an outline of history and origins of Massey University (MU) followed by a discussion of the development and goals of its distance-education activities. The chapter then concentrates on various aspects of the management and organisation of Massey's distance-teaching approach, such as restructuring of "extramural" studies; management, planning and funding; course development and delivery; interaction and communication; student support; recent critical issues, and challenges and future of MU distance education.

The final section provides a comparison of MU and UNE, and discusses common issues in dual-mode universities which deserve critical reflection. It is argued that MU and UNE share common similarities, strengths and problems. There are some variations to observe, such as in the level of funding for extramural teaching, the length of the academic cycle, and the status as a single major provider of distance education at the university level. It should be noted that terms commonly used at MU such as "extramural studies," "paper" and "on-campus courses" will be used throughout this chapter to refer to the corresponding Australian terms of "external studies," "course unit" and "residential schools" respectively.

## History and Origins

MU's history can be traced back to 1926, when the New Zealand Agricultural College Act was passed. In 1927, by an amending Act, the college was renamed after William Ferguson Massey, a former New Zealand Prime Minister, and in the following year Massey Agricultural College was formally opened. The College expanded significantly over the following 25 years, but then further expansion was accompanied by significant changes (MU, 1990b). In terms of its origins and early history, MU and UNE share similarities. Both started as colleges before being rewarded with full university status, and both are located in rural areas. It should be noted, however, that UNE was never an Agricultural College, and from the beginning it has served as a general-purpose higher-education institution.

In 1960, a branch of the Victoria University of Wellington was founded in Palmerston North to offer extramural courses in selected subjects to students throughout the country. When the University of New Zealand dissolved in 1961, Massey College elected to associate itself with Victoria University pending the assumption of full autonomy. This association was retained in the Massey University College of Manawatu Act 1962, which amalgamated Massey and the branch of Victoria University as from 1 January 1963. By virtue of the Massey University of Manawatu Act 1963, the University was granted autonomy and degree-granting power as from 1 January 1964 (MU, 1990b). The University provided the first organised and centrally-controlled distance teaching in New Zealand, and has since become the major provider of extramural studies

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throughout the country.

As is the case with Australia, MU distance education emerged largely as a response to the need for providing further training for school teachers, although some academics were opposed to the idea (Beeby, 1985). In its early years, most of MU's extramural students were teachers; since then, there has been a substantial increase in the number and proportion of students from other professions attracted to study extramurally, and thus the proportion of teachers enrolled has been significantly reduced (See: Appendix 12).

Extramural studies in New Zealand has had a long history, dating back to the origins of the University of New Zealand (UNZ) in the 1860s as an examining body rather than a teaching institution. The UNZ followed the London University model of external degrees where students sit for examinations without being required to attend lectures. But despite the long history of extramural studies in New Zealand, there was a lack of effective support services for extramural students until the creation of MU with a mandate to offer assistance to distance students on a national basis (Teather and McMechan, 1981). No statistical data are available on the success rate of New Zealand extramural students during this period.

Until 1960, each university in New Zealand made its own arrangements for extramural studies provision. Distance teaching at the university level during this period has been described as sparse, patchwork and having no uniformity (Gunn and McMechan, 1987). There was inadequate funding and, to complicate matters further, there were both part-time students as well as exempted students, who had the right to sit examinations without having attended lectures and having

received little or no assistance (Owens, 1985). When the Palmerston North University College (PNUC) was established (in 1960), changes in the extramural-studies approach were introduced. At the same time, attitudes towards extramural studies began to become more favourable, even though many conservative academics still held hostile views (Owens, 1985).

Since its beginnings New Zealand university education has been egalitarian in orientation and the geographic and demographic features of the country have been the major motivation to develop extramural studies. As Hunt (1981) has explained, extramural studies at MU provided opportunities for those who, through geographic, temporal or physical factors, otherwise would have been excluded from attempting university studies at the degree level. While in recent times more and more New Zealanders have moved to urban centres, a substantial proportion of the population still live in rural areas because of the country's economic dependence on primary produce.

The purpose of MU extramural studies is to offer courses of similar standards to internal degree and diploma courses (Hunt, 1981). This, however, raises the important question of to what extent the courses are actually similar. Like in UNE, MU faces problems as to whether extramural students cover the same course content as their internal counterparts, and whether extramural students have easy access to important facilities for successful study, such as the library, laboratories and lectures, and contacts with fellow students and academic staff. Indeed, these issues are common to all dual-mode universities.

The term "extramural" studies has a specific meaning in the New Zealand context, and it is important to note that it is some times used differently elsewhere. In some other

places, "extramural" students relate to those undertaking non-credit courses. Such courses are provided by university "extension" departments in New Zealand, but in New Zealand "extramural" students are regular students studying for degrees and diplomas, and who are exempted from attendance of lectures because their location or commitment prevent them from attending internal courses (Bewley, 1970). A distinction between "extramural" students at Massey and at other New Zealand universities is usually made, because the former offers a systematic distance-teaching methods, while the latter generally exempt conventional students from attending campus-based courses. Even though they are exempted from lectures, many Massey extramural students are still obliged to attend on-campus courses. Nowadays, the term extension department is still used in other New Zealand universities, while MU maintains the term extramural studies, and remains the major provider of extramural courses.

According to Bewley (1970), the development of extramural studies at the university level in New Zealand was complicated in the sense that universities were required by law to make arrangements and promulgate regulations for extramural studies. Most universities did so. While exemption from lectures in its strict sense applies to other universities in New Zealand, Massey extramural-studies system, on the other hand, is required to provide systematic tuition for its extramural students.

Professor Don Bewley, the former Director of Extramural Studies at Massey, admitted that the development of extramural teaching at MU was in many senses considered to be more

decades (Bewley, 1982). In fact, Don Bewley, had introduced into Massey significant elements of the UNE practice as he had worked at the UNE prior to his appointment as Director. But despite the significant adoption of many aspects of the UNE model, Massey's extramural-studies system evolved to suit New Zealand's socio-economic needs and political context. Some of the differences between UNE and MU were organisational, such as the director's role, the registry contribution, and the method of registration of students (Bewley, 1982). But generally the MU model can be considered as being similar to that of UNE as a dual-mode university.

There are two main features of the Massey distance-education approach. The first is that it is "community based." While it owes something to the general philosophy of distance education, MU extramural studies have been set up as a pragmatic response to the New Zealand situation using the resources available. The second feature is that it is "dual-mode," so extramural programs go hand in hand with the internal teaching. The basic reason for adopting the dual-mode approach was fear that a separate extramural degree would be regarded as inferior (Owens, 1985). In the Massey model, like that of UNE, extramural students generally enrol for the same courses as their internal counterparts, study the same syllabi, complete the same assignments, sit the same final examinations, and earn the same academic awards at the end of their programs. The academic staff members responsible for internal teaching are normally also responsible for equivalent extramural teaching.

## Restructuring of Extramural Studies

At Massey, extramural operations are coordinated by the Centre for University Extramural Studies (CUES). The Centre performs crucial roles in taking care of extramural students, and in liaising with academic departments and external agencies. The first Director of Extramural Studies was Professor Peter Freyberg, who helped initiate the beginning of extramural operations. He left his position in 1966 to take up the Foundation Chair of Education at the University of Waikato (Owens, 1985). In 1967, Professor Donald Beweley was appointed as Director of Extramural Studies, and this appointment coincided with the call for a review, a "comprehensive stock-taking after six years of operation." One of his first tasks as a Director, therefore, was to "reconcile a range of opinion about extramural work which varied from outright hostility, or at best indifference, to missionary enthusiasm" (Owens, 1985:58).

Changes were made to CUES soon during Professor Bewley's leadership, which lasted until 1986, particularly as regards the functions of CUES. Under Bewley, the Centre played an important role in assisting academic staff in the development of various courses. It brought the extramural programs to public notice, counselled and enrolled students, maintained academic records, assisted academic staff in the presentation of extramural courses, arranged the production of the study materials and despatched them to students. CUES was the channel both inwards and outwards for students' postal assignments. It made accommodation arrangements for on-campus courses, and organised off-campus visits by staff to

centres near students' homes, and established examination centres. The Centre also ensured that students received teaching materials on time, and it received and distributed examination scripts to departments. Finally it despatched examination results to extramural students. Some of these functions have been maintained and others have been transferred to other units (Bewley, 1982).

Under his leadership, the Director of the Centre reported to the Professorial Board and Faculty Boards. The Director performed strong negotiating roles. He was assisted by a number of staff in implementing policy, monitoring academic quality in courses, advising students, and in maintaining relationships about extramural studies with other universities and other agencies. For instance, a Resources Officer advised in course design and teaching technology. A Research Officer examined performance aspects of the system. And a Course Adviser counselled students, especially new ones, about their choice of courses. In administrative partnership with the Director was a Deputy Registrar (Extramural) with two or three middle-level Registry officers, plus the Centre's secretarial and clerical staff (Bewley, 1982).

But with significant expansion in enrolments and major changes in the University, the CUES management style clearly needed to change to respond to different challenges after a long period during which there was very little change in the extramural-studies system. In 1986, a review of the Centre for University Extramural Studies (CUES) was initiated when a new Vice-Chancellor (Dr. Waters), came into office. Significant increases in extramural-student enrolments in the 1980s was the major reason behind the decision to review and then restructure

MU distance education. An Ad Hoc Working Party was appointed by the Vice-Chancellor in 1986 to review the structure, management and operations of the University's extramural studies program. Chaired by Professor Graeme Fraser, who was also an Assistant Vice-Chancellor, membership of the Committee consisted of a small group of academics, senior administrators and extramural student representatives. The Working Party addressed a number of problems and challenges facing the extramural service, as indicated in its report:

- (1) MU extramural enrolment continued to grow substantially, putting a considerable strain on production and distribution services which were designed for smaller numbers.
- (2) The expansion of the extramural program brought pressures to bear on academic and support staff, and courses were developed, taught and assessed without a great deal of training, production assistance and regional support.
- (3) The increase in the size of extramural program highlighted the need for the development of university-wide planning services and major resource allocation, as many decisions concerning course design, development, production and delivery, as well as staff development could no longer be addressed at an individual course level (Fraser Report, 1986:1-2).



The Working Party proposed changes in the decision-making structure of the University related to distance education and in the administrative and management implications of such a structure. It recommended replacement of the Extramural Studies Committee by a Board of Extramural Studies (BES). Membership of the BES was to include the Director of Extramural Studies as Chairperson, the Chairperson of the Academic Committee, one appointee from each Faculty Board, the Librarian, the President of EXMSS (Extramural Students Society) and the Registrar (Fraser Report, 1986). The proposed terms of reference of the BES were the following:

- (1) Maintaining an overview of the University's extramural programs;
- (2) Establishing criteria for extramural offerings, including timetabling, staff time, production requirements and schedules and enrolment restrictions;
- (3) Monitoring and recommending research and evaluation procedures for the extramural programs, student advisory services, staff development and on-campus and off-campus facilities;
- (4) Initiating activities and making recommendations to ensure quality control and improvement in the extramural programs; and
- (5) Ensuring the academic objectives and programs are fitted to the production needs of the overall programs (Fraser Report, 1986:4).

Also, it was proposed that the BES perform liaison roles with other bodies within the university. The Board would report

monthly to the Professorial Board, receive recommendations from Faculty and Faculty Boards, liaise with EXMSS, and refer matters to the Extramural Management and Production Committee and Extramural Planning Group.

To facilitate the development and improvement of distance-education programs, the Working Party recommended the establishment of two further bodies, namely, the Extramural Management and Production Committee and the Extramural Planning Group. The former, which now reports to the BES, coordinates and expedites the production and distribution of materials, and handles the organisation of vacation course accommodation and examination centres for students. The latter now prepares plans for the resource needs of the distance-education programs in terms of on- and off-campus facilities and new technology on a five- and ten-year forecast basis. This Group reports to the Vice-Chancellor, and makes an annual report to the Professorial Board and liaises with the BES (Fraser Report, 1986).

The other area of important change which was recommended by the review was in the management structure for distance-education programs, especially clarification of the administrative functioning of CUES and the Director's responsibilities. The Working Party recommended some basic principles which resulted in administrative responsibilities being split between the CUES and the Registry. First, it was recommended that the Director be given responsibilities for activities which were peculiar to extramural programs, or which involved liaison between the academic teaching program, and production and distribution services, such as course development, production and distribution; regional services; on-campus and off-campus vacation courses; extramural

examination and research. Second, it was recommended that the Registry be given responsibilities for activities which were common to extramural and internal students, such as registration and enrolment, student liaison and student course-advisory services (Fraser Report, 1986).

At the time, it was recognised that these major recommended changes would take some time to implement. Around that period a new Director, Associate Professor Tom Prebble, was appointed to replace the outgoing long-time Director, Professor Don Bewley. It was expected that the new Director, who took up the position in October 1986, would begin implementation of the proposed changes immediately. The Working Party summed up the report with the following statement: "The purpose behind all these changes is to provide an extramural service that maintains the flexibility and responsiveness which are the hallmarks of the Massey University programme, but which also meets high standards of academic quality and administrative efficiency" (Fraser Report, 1986:7).

The review also recommended that there should be no separation of the academic and functional directorship of CUES. Thus it was intended that the new director of CUES would function as both a manager and an academic. Prior to the review, the key areas of CUES were divided, in terms of functions, into two, with the registrar being in charge of enrolments, materials, despatch, assignments and examinations; and the director being responsible for staff and students, public relations, committee work, and representation on faculty board. Thus the director was the professional leader, but not the actual manager. The review recommendations were viewed as a radical change in the role of the director, as they meant an increased

emphasis in his role on policy development and management (Prebble, PC, 1991).

Similar views were put forward by the former Director of CUES, who considered that the major impact of the review was a change of responsibility for a number of areas of distance education (Bewley, PC, 1991). Program development was moved back to the faculties. The Director of CUES took responsibility for production, distribution and management. The enrolment function was moved from CUES to the central administration. Regional services were encouraged. Despatch of course materials was moved out of CUES and linked with the printery. As a result, staff functions became more specific and specialised as the distance-education effort increased in scale (Bewley, PC, 1991). The review called for the need to emphasise the management functions of the distance-education unit.

The review thus recommended changing the way in which the BES operated. Arising from that change, BES could develop a programming system, specifying as the date course materials had to be produced and used. What the review did was to make the administration more effective and to make CUES a more effective administrative unit. The recommendations had significant impact on the way the distance-education unit operates. Although the change was considered by many as important, Professor Bewley felt that he could no longer work with the new Vice-Chancellor, who had no experience in distance education, and who initiated the review of CUES (Bewley, PC, 1991). Professor Bewley retired in 1986.

The review drew attention to the problems and complexity of MU distance-education programs at that time. It is somewhat difficult to describe in details the immediate conflict of interests among various members of the University community that arised as a result of the review recommendations in 1986. There was certainly some resistance from members of the academic community. Although a number of recommendations were offered by the Working Party in its report, perhaps only some of them were accepted and effectively implemented.

Five years later when the research was being undertaken, however, academic staff generally expressed their satisfaction with the current operation of the system (Shaw, PC, 1991; Gwyn, PC, 1991; Shouksmith, PC, 1991). For example, with the creation of the "Extramural Management and Production Committee," the views of academic staff regarding extramural studies can be well coordinated and presented, and the Committee is chaired by an academic staff member who liaises between academic staff and CUES (Prasad, PC, 1991). The Committee helps coordinate the management and production of course materials in order to be more efficient. The BES serves as an important body which helps manage the complexity of distance-education operations (Gwynn, PC, 1991), which demand industrial procedures and at the same time involving academic cultures.

## Further Development and Goals of Distance Education

According to Prebble (1990), the Massey dual-mode system has a pervasive effect on the university's approach to distance teaching in a number of areas. First, academic program planning conforms closely to the conventional model of academic planning for internal teaching with the initiative being left largely in the hands of teaching departments. This is an almost universal feature of dual-mode systems. The institutions remain predominantly academic organisations, but they have some industrial characteristics in the distance-education programs.

Second, the extramural academic year conforms to the internal academic year, and enrolment is an annual event rather than a continuous process. This is somewhat different from the UNE system which is based on a semester system. The plan to move to a semester system has so far been unsuccessful, and has generated conflict among various sections of the University. Some academic departments support a semester system on the assumption that more time for research and scholarly activities would result. Others see possible problems under a semester system with regard to the preparation of course material for extramural teaching, believing that a semester system could lead to an increased burden for academics. Administrators are assessing the cost implications of a semester system, but the University has recently decided to operate, in both its extramural and internal modes, under a semester system in 1995 (MU, 1993).

Third, like the UNE system, responsibility for course development and assessment is vested with individual

academic course controllers and their departmental heads, as it is for internal teaching. Consequently, both MU and UNE share similar problems regarding course preparation and development. This is in contrast to most single-mode institutions where responsibility for these functions tends to be more centralised.

Fourth, systems for teaching and supporting extramural students which can be sustained by individual course controllers tend to flourish, while systems which require central coordination and resource allocation often prove difficult to organise (Prebble, 1990). This follows from academic departments having significant roles in terms of teaching and program development for distance education. In conclusion, both MU and UNE do not differ significantly in terms of the kinds of conflicts between internal and distance teaching over these various issues.

The goals of MU, as stated in its interim corporate plan, are to undertake various roles in research and scholarship, education and training, leadership, social mobility, community education and services, continuing education, the protection of cultural heritage, and being repository of knowledge (MU, 1990). The University's Statement of Educational Purposes in its Interim Charter explicitly mentions the provision of distance education, saying that the provision of educational opportunities will be through "extramural and internal tuition" (MU, 1991:8).

A number of goals, particularly relevant to distance education, are set out in the Interim Charter. MU is committed, insofar as the resources are available, to the following goals in pursuing its overall mission: "to provide



Another goal is "to take a leading role in meeting the advanced educational needs of society through undergraduate and postgraduate programmes and through post-experience courses, continuing education, professional refresher courses, modular training and outreach courses and other appropriate educational initiatives" (MU, 1991:8). In other words, these goals commit the University to providing post-secondary education available on a life-long basis internally and extramurally for students throughout New Zealand and some overseas locations.

It is, however, highly unlikely that such competition will lead to diversity, as is the case in Australia. This is because New Zealand is a small country and Massey is already well established a major provider, so that other institutions are likely to be cautious in setting up distance-education

Koleksi Perpustakaan Universitas Telkom Competition (Prebble, PC, 1991). The

competition may well lead naturally to the specialisation of provision rather than duplication of distance-education course offerings. For example, Victoria University of Wellington has recently developed a distance-education program on "Library Science" which is not offered at Massey.

### Management, Planning and Funding

Management is of crucial importance in any form of distance education. The management of distance education in a dual-mode university involves both overall university management, and policies and procedures for the conduct of both internal and extramural teaching. Generally there are important differences in the management approach adopted between traditional universities on the one hand, and dual-mode and open universities on the other hand.

Currently the control, organisational and management structure of MU extramural studies can be described as "taking place within a multi-layered system" (Prebble, 1991a). Looking into the organisational structure of CUES can be likened to looking at an iceberg, as the current CUES Director made the analogy; only a small part is visible and the rest is almost entirely invisible under the water. Within the system, the top level of management deals with the relationship between the university and government; the second level with the systems of academic governance within the university; the third with the control and management of the extramural program within the university; and the fourth with the management systems in operation within the CUES (See: Appendix 13 and 14 for further details). The current structure of CUES emphasises managerial

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culture, although the Director still has to carry out negotiating roles.

The Centre itself has three operating divisions: Teaching Resources, Regional Services, and Administrative Services. Other administrative and support services for the extramural program, such as the registry for student enrolments and academic records, the printery, and the television production facility, are provided by the central university administration servicing both internal and extramural students (Prebble, 1991a).

Under such circumstances, planning becomes a complex process in a dual-mode institution like Massey, as considerations have to be given to both types of students. Although Massey offers numerous papers by distance education, it is still a traditional university, in which the processes of academic decision making are essentially collegial. Planning of academic programs, both for internal and distance students, is the responsibility of teaching departments rather than CUES. What CUES can do is to circulate proposals to the academic departments as it does not decide what will be taught. The BES advises the University on its policy regarding extramural teaching.

From the central administration point of view, there are two aspects in planning in a dual-mode university. These are the academic and the forecasting (Hogan, PC, 1991). On the academic side, extramural programs are parallel to internal programs, so planning for each is identical, although there might be planned changes as regards the delivery method of individual papers. For instance, off-campus vacation schools

extramural students, reflecting changes in New Zealand economic circumstances. It has become increasingly difficult for many students in terms of cost to attend on-campus courses, and now only approximately 20% to 25% of extramural students attend on-campus courses. Consequently, regionalisation policies have been introduced, including the employment of regional tutors and course advisers.

The second aspect to consider is forecasting trends. What the central administration does is to review statistics on student characteristics, monitor trends and prepare forecasts for extramural student enrolments. Then resource-allocation decisions can follow. For instance, recently there has been a decrease in the number of rural students. This is prompting MU to consider potential clients other than these traditional distance students, and to develop programs which will attract them.

Another important issue is centralised versus devolved funding. From a management point of view, devolved funding is attractive. By giving funding directly to academic departments, they are able to buy services provided by CUES. Various arguments, however, have been put forward against the approach. In a devolved system, it is argued that a major limitation lies in the management of quality. According to this argument, the teaching departments will have power and control over funding, and thus it might be difficult for CUES to encourage teaching departments to spend money for extramural teaching purposes, because they may decide to give a higher priority to other activities, such as teaching internal students. In a devolved model, thus a major danger is losing control of quality and financial controls (Prebble, PC, 1991). In a

centralised funding system, there could be limited allocations to departments to create distance-education programs. But the CUES would manage and fund these programs.

Funding is a controversial issue in MU distance education, since government funding for distance teaching in New Zealand has been at a lower level than funding for on-campus teaching. Until recently, New Zealand universities had been funded on the basis of an EFTSU formula. The UGC operated a five-yearly funding system and called for funding requests from universities, and negotiated funding levels with the government. Under the formula funding, an increase in students enrolled in a university would require more resources. Until now extramural studies at MU has attracted the lowest band of funding, which has been further discounted by 20% of the internal EFTSU funding level. "Banded" funding means that a number of disciplines are classified into several groups for funding purposes, and the level of funding depends on the discipline. Extramural teaching corresponds with those disciplines funded at the lowest level, such as the humanities and social sciences.

The "old" funding formula produced unexpected growth which is difficult to be used as a basis for calculating economies of scale in distance-education programs. Extramural papers required an enrolment of 40 to 50 students to reach a break-even point financially (Prebble, PC, 1991). For instance, in 1990, there was a 5% increase from the previous grant; however, extramural enrolments increased up to 17%, generating a 10% increase in EFTSU from extramural students. The problem, then, was how enrolments could be best managed under a restricted funding formula. The pragmatic suggestion

was to reduce the number of papers by up to 25%.

Most of the funding for distance students is directed to teaching departments in terms of salaries and departmental operating costs; the balance meets the cost of central services such as the registry, library, and CUES (Prebble, 1989). CUES funding has not been tightly based on EFTSU, but on needs. Cost analysis of extramural teaching in a dual-mode university poses special problems, as academic staff undertake extramural teaching as part of their overall duties. A calculation by Prebble (1989) indicated that only when enrolments exceeded 40 students per paper did an extramural paper begin to achieve economies of scale. While most lower-level courses attract a large number of students, enrolments in upper-level courses are generally low and thus it is difficult for them to achieve economies of scale.

In 1989 the MU operating budget totalled around New Zealand (NZ) \$ 70 million. More than NZ\$ 50 million was spent on salaries, and the balance was spent mostly on overheads and allocations to departments, with a small sum being allocated for capital items. However, only a minimum percentage of the funding was provided for CUES. For instance, in 1991, CUES received a total of \$ 2.5 million, of which \$ 1 million was intended for staff and the balance for the Centre's functions (Prebble, PC, 1991).

## Course Development and Delivery

Course development at MU has similarities to that of UNE. A distance-education paper is developed once it has been approved by the teaching department and the Academic Board. Individual academics are responsible for the academic content, while CUES provides instructional-method consultancy and production. Parallel to internal courses, extramural courses are offered by MU over the full year, starting with a summer enrolment during January and February, and concluding with final examinations in October and November.

The processes of course development can be explained in details as follows. Most units have a single academic course controller or coordinator. (Please note that MU generally uses the term "course controller" instead of "course coordinator" as commonly used at UNE.) The course controller is responsible for planning the course, preparing the draft teaching materials, setting and marking assignments and examinations, organising and teaching at residential and regional courses, and responding to communications from students. The course controller receives assistance from CUES in preparing materials, wordprocessing and editing the draft study material.

Academic staff have a large measure of autonomy and this hands-on involvement characterises the planning, preparation, teaching administration and assessment of their extramural courses. For academic staff in a dual-mode university, teaching at a distance usually is their normal job as part of their overall contractual arrangements. Involvement in distance teaching can have some positive effects, such as helping staff better prepare and develop teaching material for



internal students. Staff also have the opportunity to write course materials. There is something of a paradox in this case. Compared to their colleagues teaching in the traditional university, with the enormous task of dealing with both internal and distance students, academic staff in a dual-mode university such as MU have more limited time for research and scholarship, and tighter schedules for the preparation of extramural teaching. However, for those staff who enjoy teaching and working with adult students, this can be a challenging and interesting task.

At the beginning of the academic year, course materials are despatched to students. These materials may include print materials, audiotapes and videos, floppy disks, laboratory material and kits. The print materials consist of study guides plus books of readings, or books produced or included for this purpose. Audiotapes and videos are supposed to come back to the university for recycling. Floppy disks are sent to students, particularly those taking computer courses and some business courses. Some science courses require laboratory materials, such as soil samples for agronomy papers, and laboratory kits. The variety of materials sent to students require the despatch unit to use different kinds of packaging.

MU distance students basically learn from print material, which is the major medium of instruction. The effective use of this medium has been a success because of the efficient and reliable postal service. Print continues to predominate on the grounds of cost, accessibility to both writers and students, flexibility of use, and all-round effectiveness as a teaching medium (Prebble, 1990). The print material contains two or

articles from the literature. Study guides are provided to present the main ideas of the course, to direct students' pacing of learning, and to set assignments. Courses tend to rely heavily on written assignments submitted by students according to a schedule of deadlines, and in most cases marked by the course controller.

Each extramural paper usually comprises a 60 to 70 pages of study guide and resource books, or books prescribed by the course controller. The study guide provides unit objectives, an explanation of the reading material, information on assignments, and advice on how students should use the material in their study. Language papers generally require the use of tapes and sometimes television, such as "Introductory French" and "An Introduction to Maori Language and Tradition." The paper 36.265/365 "Distance Education" has two books of readings, consisting of journal articles, conference papers and book chapters, and totalling around 400 pages. In a "Marketing" paper, students are required to purchase textbooks, with study guide being provided by the lecturer explaining about the textbooks. Some Government-funded papers, such as those dealing with "School Administration," are well-designed and developed, and of a similar kind in quality and format to the MBA units at UNE.

Media other than print have been increasingly used, particularly audiotapes. Audiotapes are used by about one third of all courses, while at UNE, approximately half of external courses use audiotapes. These tapes are generally produced by the course controllers themselves with some technical assistance from central staff. The major advantage of audiotapes is flexibility. Students can use them on

different occasions to serve different purposes. The use of audiotapes for extramural teaching at MU has proved to be effective and significant as a supplementary teaching aid (Long and Povey, 1982). Experiments on tutoring by telephone have been undertaken, and extramural student responses towards the teletutorial have been almost entirely positive (Broadley and Shaw, 1982).

Other media have also been used, such as telephone tutorials, television, audio-visual material and occasionally computer conference. MU has made some use of television broadcasts. However, this development has not been supported by explicit government policy. Rather, the public television network, in an effort to reduce its costs, has sold the University an hour of broadcasting time each week outside normal viewing hours. Television provides supplementary instruction and support for about ten percent of all extramural courses, mostly the larger enrolment ones (Prebble, 1991a). A much smaller number of courses use home-based computers.

Diversity is, perhaps, the word that best describes the distance-teaching style of different course controllers. Academic autonomy, which is common and the distinctive feature of a traditional university, is usually adopted in the distance-education practice in a dual-mode institution. Academic staff have their own scholarship experience, which they think can be applied effectively to distance teaching. Their approach is based on their own disciplinary background, on previous training, and, perhaps, biases. The way they teach internally may differ from one lecturer to another, and so many believe that extramural-teaching style too should be different

subsequently high-quality standards in distance teaching is a major issue in a dual-mode university, although it should be noted that high quality may not necessarily be dependent on uniformity alone.

It will be important to pay some attention to how individual course controllers teach at a distance at Massey in order to understand the diversity of approaches to distance teaching. Different course controllers may use different assessment requirements, different media for distance teaching and different way of providing feedback for students. The following is an example of some extramural papers offered at MU. The university has developed extramural programs in a variety of areas such as the social sciences, business studies, education, sciences and applied sciences. The profiles of the following papers indicate the variety of methods, media and approaches used by academic staff in teaching extramural students.

The first case deals with the extramural paper 56.111 "Principles of Marketing." This particular paper is a typical first-year level extramural paper, which has a large number of enrolments, offered within the Faculty of Business Studies. Three years ago, "Principles of Marketing," attracted around 900 extramural students, but in 1991 there were only around 700 students enrolled. The course contains a set of study guides, which included an administration handbook and a discussion of the textbooks used. Students are encouraged to attend vacation courses on-campus; however, only around 100 students participated in these courses in 1991. As a result, regional courses are also now offered. In 1991 regional courses in Christchurch attracted around 40 to 50 participating students,

and in Auckland attracted approximately 100 students. Generally not more than one-fourth to one-third of students in particular areas attended regional courses. For this particular paper, no compulsory attendance is required because it is a first-year course with a huge enrolment. During the course, students are required to complete two written assignments and attempt four multiple-choice tests, each of which contribute 5% to the final assessment (Brennan, PC, 1991).

The above case is an example of a first-year course unit with large enrolments. Students are generally encouraged to study independently textbooks provided for them with the help of the study guide. They also are expected to participate in voluntary face-to-face contact with their lecturer, either on-campus or in regional centres. Even in a dual-mode university, it is very difficult to impose compulsory on-campus or regional courses because of the large number of students enrolled in that particular course, otherwise significant accommodation for extramural students needs to be provided. Regional courses are preferred to on-campus courses in order to facilitate students in attending face-to-face contact with the teacher.

The second case is a foreign language paper in French offered by the Faculty of the Humanities. Students are expected to work through a set of study guides devoted to particular aspects of French. Materials are provided for the students to read. A number of media are used to encourage and help students' learning. For instance, audiotapes containing oral and listening exercises are widely used. Students are asked to record spoken French and send the tapes back for

marking and comments as part of the assignment. Other media used include video-tapes and television programs (Cropp, PC, 1991). This particular paper employs a number of media, apart from the print material. This case indicates how a modern language, which requires the mastery of very complex language skills (listening, reading, speaking and writing) can be taught by distance education. In Australia, UNE, too, offers distance courses in modern European languages such as German, French and Italian, while at the University of Southern Queensland Asian languages such as Japanese and Indonesian also are taught by distance education.

The third case is a paper offered in the Department of Agricultural and Horticultural Systems Management. Two papers at the 200 and 300 levels in "Introductory Farm Management and Production" can be taken by extramural students. Around 25 students are enrolled in the 200 level paper. Most of the students live, interestingly enough, in the middle of major cities; they want to know more about agriculture. Other students are farmers, mostly in their fifties. These papers require students to undertake fieldwork on commercial farms and to attend residential courses. Students thus have to be in contact with both commercial farmers and the teaching staff. During the vacation course, video-tapes are used on a limited scale to encourage students in face-to-face discussions. Internal students benefit from extramural materials used in tutorials, fieldwork projects and feedback to students (Hurley, PC, 1991).

The third case indicates how courses which require significant fieldwork and practicum also can be taught by distance education. Even the distance-learning arrangement

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seems to enable students to gain hands-on experience in the field. Another potential benefit for such an arrangement is that some students may also be able to identify potential employers in commercial farming. The complex skills of science practicum can be taught by distance education through involving effective residential courses, use of media and supervised fieldwork. As papers in "Farm Management and Production" are taught to both internal and distance students, an important objective is for each group of students to have equivalent learning opportunities. Given the nature and extent of the field-based components of those papers, careful management of courses is required in order to achieve that objective (Hurley and Anderson, 1991).

There is a high degree of transferability between internal and extramural teaching which can benefit both kinds of students. Preparing study guides for extramural teaching benefits internal teaching, which as a result can become better organised and planned (Cropp, PC, 1991). In fact, the benefit goes beyond that. Extramural students may provide input for staff in course development. Most distance students are adults already in the work force, while many are well established in a profession. They are experienced mature-aged students, and they have a first-hand knowledge of the work place. Extramural students are different from internal students; they are older and often better motivated. Staff find them more rewarding and challenging to teach (Gendall; Gwynn, PC, 1991). Staff also can draw on their own experience as to what sort of skills and knowledge should be taught to both groups of students. To use Prebble's words, the dual-mode university allows "the symbiotic relationship between an internal course and its extramural



equivalent" (Prebble, 1990:12).

### Interaction and Communication

Teacher-student contact is viewed as essential by staff at MU, and contact between students and teachers are undertaken by a number of mediated means, as well as face-to-face contact. The face-to-face communication includes seminars, lectures and group discussion between students and staff, conducted either on campus or off campus. Generally on-campus courses are all scheduled within the three-week periods of the May and August vacation for internal students. At least half of all MU extramural courses incorporate a residential component of three or four days on campus in Palmerston North. At UNE, residential courses apply to approximately 70% of external courses. More than half of MU residential courses have a compulsory attendance requirement. However, over the past decade, staff responsible for the larger enrolment courses have been encouraged to schedule a series of regional week-end courses instead of campus-based courses (Prebble, 1991a). Attendance patterns vary across programs, but generally it is estimated that a voluntary requirement will attract around 30% of enrolled students, compared to more than 80% for compulsory requirements. Individual costs are an important consideration for distance students attending on-campus courses.

The major purpose for conducting on-campus course is to provide an educational experience which cannot be provided through the normal distance-education means. For instance, laboratory and computer experience, practical work and supervised field study require students to come to campus.

On-campus courses provide students with an important learning experience, that is, the exchange of ideas within the group or between academic staff and students. Another reason is to enhance motivation, feedback and encouragement. On-campus periods provide an opportunity for students to make use of library and other facilities and to foster support networks among students. In a traditionally academic institution such as MU, many staff still believe that an on-campus course validates the award of a degree (Minutes of Meeting, BES, 1990).

A number of reviews on residential requirement has been undertaken periodically. Several developments resulting from these reviews in recent times are noteworthy. A small number of extramural papers have discontinued any direct contact with students; for example, courses in computer science have adopted a policy of home-based computer access to take the place of direct lecturer contact. A similar trend is also taking place at UNE, which is more heavily involved than any other Australian DEC in using interactive video conferencing, talkback radio and broadcast television for educational purposes (Chick, 1992). In the meantime, the number of regional courses at MU has increased significantly. There has been little modification in attendance requirements at the 200 and 300 levels and a more rigorous approach to attendance at the 600 level. Of great interest may be the differing requirements among departments and faculties. However, attendance requirements did not change markedly until the early 1990s (Minutes of Meeting, BES, 1990).

Despite the advantages of on-campus courses, there have been increasing pressures against them, particularly from the

students' economic point of view. Also with recent increases in tuition fees, there is a growing resistance to attending on-campus courses. This is forcing the University to present strong reasons to ensure that on-campus requirements meet course objectives. Otherwise, alternatives to substitute for them may have to be offered. Some of these alternatives have been used for many years, and their uses have increased in recent times. For instance, audiotapes are now used extensively by many departments. Regional courses can be more effective with papers with large enrolments. A number of departments have also employed regional tutors for several years (Minutes of Meeting, BES, 1990).

Mediated communication involves the use of interactive media, such as telephone, computer and other electronic media. MU distance is keen to develop other means of interaction and communication with distance students. Interactive technology, such as electronic mail, may be used effectively, but the problem is whether or not all students have access to the necessary devices. One option is to set up an electronic link with regional offices, where there are significant extramural student enrolments. With interactive media, the University recognises the need to encourage staff to use accessible interactive media and to ask students about their opinions as to whether they prefer the traditional face-to-face interaction, or mediated communication. Ideally all students should have a broad range of options from which to choose. The major challenge thus for MU is to provide these options. Some students may opt to come to campus, while others may work within the regional office, or even at home. But to provide the options needed by distance students it will be necessary to

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convince the Government that distance students should be funded at the same level as internal students.

#### Distance Students and Their Support System

In 1993, MU has over 15,700 distance students, enrolling in more than 600 extramural papers. These papers can contribute to degrees of other New Zealand universities as well as MU. Students have a wide range of options to complete 20 degrees, over 30 diplomas and 7 certificates by distance education (Pech, 1993; See: Appendix 15 and 16 for details). In comparison, by 1992 UNE Armidale had approximately 9,500 external students out of a total enrolment of more than 14,600, one-third enrolled in postgraduate courses. UNE distance learners also have a wide range of choice of 80 different qualifications, ranging from Aboriginal Studies to Zoology (Chick, 1992). There was a steady growth of extramural student enrolments, distributed over Massey's eight faculties, during a five-year period since 1985, as shown in Table 10 below. It is interesting to note that there is a steady increase in extramural student enrolments in most faculties, notably in "Business Studies." Enrolments in science-related faculties remain very small. Enrolments in education have only slightly increased, but in proportion to other faculties have decreased. This is probably because there also are teachers' colleges which offer courses by distance education.

Table 10  
MU Extramural Enrolments by Faculties, 1985 - 1989

Faculties	85	86	87	88	89
Agricultural & Horti- cultural Sciences	217	201	170	126	213
Business Studies	3,011	3,951	5,237	5,873	6,197
Education	1,211	1,288	1,400	1,406	1,436
Humanities	1,770	1,729	1,891	2,103	2,111
Science	432	447	503	582	638
Social Sciences	4,230	4,559	4,791	4,865	5,250
Technology	79	100	125	132	136
Veterinary Science	-	-	-	-	48
Total	10,950	12,275	14,117	15,087	16,029

Source: MU, 1990:17

Generally, approximately 80% of the extramural students come from five major "market groupings:" government or public servants, housepersons, nurses, teachers and private sector employees. A further 5% are self-employed. Less than 5% classify themselves as students only, and less than 3% of extramural students are unemployed or retired. Market penetration analyses carried out in 1988 and 1989 indicate that extramural enrolments nation-wide are generally consistent with regional population distribution. MU is therefore providing educational opportunities throughout New Zealand that are being taken up without perceived regional biases. Maori enrolments contribute to well over 6% of first year enrolments and just over 4% overall. With the relaxed entry policies for mature-age students, only 40% of extramural students present entry qualifications of University Entrance or better. In

1989, those with no school qualifications rose sharply to over 50% (MU, 1990).

According to the last census in 1986, the New Zealand population totalled over 3.3 million. With an annual increase of .8%, it would have reached approximately 3.4 million in 1991. New Zealand society has been becoming increasingly urbanised with 84% of the population classifying themselves as urban (Prebble, 1991a). As a developed country, New Zealand society has enjoyed a relatively high standard of living. However, the worsening economic recession for the past few years has reduced the total of public spending. This has had an adverse consequence on distance-education funding. Many universities, including MU, have experienced a reduction in Government grants during the most recent years.

The distinct delivery method of distance education requires particular kinds of student-support systems. Distance students need some specific support services to help provide reassurance about themselves, and to stimulate and strengthen their motivation and commitment. In addition, they need continuous information about the institution, its programs, staff and fellow students.

MU remains a relatively centralised operation. Few study centres have been developed, with the University generally preferring to support its students from the centre, except for a few departments which employ part-time tutors in the regions. It thus has approached student support mainly through a variety of means other than the so-called regional centres as in most open universities. However, a continual expansion of regional services is strongly demanded, both by the positive student

improve student support through regional services.

The University has developed its regional support system for distance students through establishing a small network of regional course advisers, the EXMSS area communicators and the regional tutor networks. Both regional advisers and tutors are funded and operated by the University, while area communicators are an informal network of student volunteers operated by EXMSS (MU, 1991a). Despite the absence of regional centres, MU has managed to provide support services needed by students in various forms.

In 1985, a pilot scheme was initiated to appoint a part-time regional course adviser based in Auckland in the North Island. The scheme highlighted the benefits of students having access to a local person who is an authoritative source of information about the university. With the changes in the structure and functions of CUES in the following year, it was recognised that there needed to be greater commitment to regional support staff.

The appointment of regional course advisers has since then been increased to meet the growing number of extramural students as the result of the easing of the admission regulations. In 1991, there was one on-campus course adviser at CUES and six regional extramural co-ordinators in Auckland (two), Napier, Wellington, Christchurch and Dunedin. The six regional offices provide various services such as administrative support, information source, course advice and study skills. The role of regional course advisers is to provide information regarding the course and support extramural students in their study.



Back in the middle of the 1970s, student initiative became the catalyst for the establishment of a decentralised support system for extramural students at Massey University (Williams and Williams, 1987). Many students felt a need for readily available support to compensate for their isolation and began local activities by organising study groups of those studying similar subjects. Since then, a network of student volunteers called area communicators has been maintained by the EXMSS independently of the university.

The EXMSS operates a system of peer support with area communicators. These people are experienced extramural students who volunteer to act as local resource people for extramural students in their local areas in order to develop peer support. There are approximately 70 area communicators in New Zealand and 4 overseas who also organise social activities and provide informal advice to students (McIlroy, 1988a). Area communicators are not officials of the University and thus do not have authority to speak on behalf of the university.

EXMSS also performs other roles. In a distance-learning process, one of the greatest problems of extramural students is isolation. EXMSS keeps contact with students and passes on information to them, and looks at issues raised by students frequently, such as in course structures, fees, assignment turn-around time and study guides. Students often do not raise these matters with course controllers because they fear that this could jeopardise their marks. These comments are brought to the appropriate administrators and support staff for action. The other main function is to organise student social events on campus, and provide access to sports and recreation facilities.

EXMSS informs extramural students what services are available to help them in their study and in coping with isolation. National newsletters are published several times a year and distributed by EXMSS to students as information and communication channels and to encourage them. EXMSS also plays advocacy roles, lobbying local and national politicians and the Vice-Chancellor on issues such as student fees and the needs for regional courses. Extramural students are also represented on Faculty Boards, the BES and the University Council. In this way, the opinions and interests of extramural students are expressed through the formal channels (Barker, PC, 1991).

Some teaching departments operate regional tutor networks in various ways according to departmental requirements. For instance, the departments of English, History and Nursing Studies ask their tutors to act as resource people for a number of extramural papers, with a special emphasis on the 100 level courses. The Education, Geography, Management Systems and Sociology departments appoint tutors for specific papers with large enrolments (McIlroy, 1988a). The networks range from those which try to make a tutor accessible to students in all regions of New Zealand to those which have regional tutors only in areas where there are large extramural enrolments in particular papers. The duties of regional tutors vary according to departmental requirements, but all are available to local students as resource people for the subject.

Regional tutors offer not only academic support and guidance but also the reassurance needed by many students new to tertiary study environments. This is important for maintaining students' morale and motivation in learning. A

tutors play a vital academic support role for extramural students at MU. They help students by way of personal contacts using telephone, mail, and in person, and by conducting local tutorials. Their support breaks down the isolation of the distance learner, and helps students develop positive attitudes and feelings towards their study. In other words, it encourages students to be self-directed in their learning (McIlroy, 1988).

### Recent Challenges

During the fieldwork at MU (in the second half of 1991), three critical incidents were identified, i.e., (1) current debate over semester system, (2) quality assurance, and (3) managed enrolment. These three issues are important to discuss as their resolution will have a significant influence on MU distance education. These are similar problems to those faced by UNE, except for the proposed change to a semester system, as UNE has operated on a semester basis for a number of years.

Both internal and extramural teaching at MU have been organised on a year-round cycle, with the enrolments at the beginning of the year and examinations at the end. There has been considerable debate recently over a proposal to move to a semester system. A committee was set up by the Vice-Chancellor to investigate the possibility of introducing such a system. The committee produced a report, recommending a so-called "modified term system." This recommendation resulted in further discussion for and against the semesterisation of the academic cycle at Massey. The supporting arguments for the semester system included the greater flexibility in scheduling and

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sequencing of courses, the ability to schedule research and leave periods easily, and a belief that more concentrated study over shorter period of time had advantages for both students and staff. In general, the faculties supporting the move were the sciences and applied sciences, which traditionally had low enrolments in extramural courses.

The main argument against the semester system were that it would place great pressures on part-time students to complete their study within a shorter period. The University also would face similar pressure to provide its administrative and teaching services within a shorter time frame. Furthermore, the mid-year examinations and enrolments for extramural students would generate increased administrative costs. The faculties opposing the move were generally those heavily involved in extramural teaching (Prebble, 1991b). It should be noted that many of the distance-teaching institutions in the world operate on a semester system. The most recent development at Massey is that the University has made a commitment to moving to a semester system (Prebble, PC, 1993).

Quality assurance remains a major issue in many dual-mode universities, particularly those operating under conditions of major devolved responsibility to faculties and academic departments. Quality is an important issue because the teaching materials are open to public scrutiny and there is concern that the public should receive "value for money" from public services. The quality of programs in dual-mode universities can sometimes be unsatisfactory and not acceptable to students.

Quality has been a complicated issue at MU involving not only CUES but also the academic departments and the whole university. Quality in distance education includes not only the teaching material but also the services provided by CUES and the central administration. In a collegial organisation with a strong academic culture, issues of quality, assessment and accountability of distance-education programs tend to be very sensitive ones. Any proposal to deal with these issues and to attempt to develop university-wide systems to ensure institutional quality standards often will provoke reactions from the academic departments (Prebble, 1991).

The background to the quality assurance debate at MU is important to note. Until several years ago, there was little interest by the University in addressing the issue of quality assurance. In 1985, Don Bewley, the former CUES Director, was able to secure the appointment of two teaching consultants in order to help improve the quality of teaching material. Initially there was substantial resistance from the teaching departments, who believed that the best strategy was to add additional staff in academic departments in order to improve the quality of extramural teaching. In 1991, the only one teaching consultant at the time of fieldwork voluntarily performed such tasks as preparing printed guidelines, working with departments and faculties, evaluating courses on request, and conducting student needs assessments on request.

In 1989, the BES set up a Quality Control Committee and started to work on guidelines for quality assurance and standards, but this met with great resistance from academic departments, being regarded as interfering with individual

quality standards in such a devolved organisation. When a maximum standard was set, people said it would force uniformity. On the other hand, with a minimum standard, staff would meet such a standard without objections. Later the Committee produced a report, which did not secure general approval and so was withdrawn. Quality assurance thus was left to individual departments. This was a logical step to devolve quality-assurance responsibility to the teaching departments because there was a limit to what could be achieved through the CUES (Prebble, PC, 1991).

One way of dealing with the quality challenge is by focusing the role of CUES as a service unit, for instance, in making sure the quality of the teaching material is satisfactory. What CUES can do is to work with the teaching departments to ensure quality standards, if the departments accept this as their responsibility. CUES suggested guidelines even though it had difficulties in enforcing them. The important thing from the perspective of CUES was to make sure that academics did not encounter the same problems or made similar mistakes in each successive year. It should be noted that extramural students tend to see extramural programs on a paper-by-paper basis. The next challenge for CUES is to ensure that academics accept collective responsibility. Quality assurance should be a shared responsibility of the university-wide system and of the units involved in extramural teaching (Prebble, PC, 1991).

According to Prebble (1991), the issues of quality can be confronted with two contrasting alternatives, either through "swimming against the current" or "swimming with the current."

The former challenges traditional values of academic freedom

and market flexibility in a dual-mode university. The approach requires distance courses to pass through close scrutiny. Such a requirement obviously takes longer to achieve, but it is particularly applicable to newly developed courses. One weakness of this strategy, however, is that the academic structures and cultures prevailing in a dual-mode university such as MU are not conducive to strong central control over the quality of distance teaching. The approach will, for instance, necessitate the involvement of a team rather than an individual teacher in course preparation and development, thus reducing the control over distance-education courses by individual lecturers. It also demands central control over issues of course planning, budgeting, servicing and revision (Prebble, 1991).

The second alternative allows for more flexibility, in which advisory services to teaching staff in order to assist them in extramural teaching are available on a voluntary basis. A proposal for introducing an institution-wide quality-assurance system at MU has been viewed as unpopular by staff. A reasonable compromise thus, according to the Director of CUES, is to affirm that teaching departments, rather than the university as a whole, are the proper locus for quality control (Prebble, 1991). Departments, according to this view, have to make sure that the extramural courses achieve high standards. This second alternative, however, seems to dodge the issue of quality control. When quality assurance is to a large extent devolved to academic departments, these departments tend to apply different quality standards, and this is a common practice in dual-mode universities.



Quality control remains a complicated issue in dual-mode universities including MU. As teaching staff bring to their task in distance teaching values and experience of traditional academic life and scholarship, it may be difficult for many of them to appreciate the significant differences in quality control between internal and extramural teaching. What is needed is a significant shift in organisational culture and academic attitudes to be more favourably inclined towards ensuring effective quality assurance in distance education. For example, academic staff should be better encouraged to appreciate that extramural teaching materials are subject to public scrutiny. Anyone can have access to the print materials, whereas generally classroom lectures can only be attended by students enrolled in a particular unit. Another strategy may be to give greater recognition to the work of extramural teachers in developing distance courses.

The dual-mode approach enables rapid adaptation to changes in curriculum and content of the courses. In terms of course development, the dual-mode system allows flexibility and adaptability to change compared with the rigid procedures in a single-mode institution such as the UKOU. It also allows for changes, both small and more substantial, throughout the year (Shouksmith, PC, 1991). Revision of courses in an open university may take as long a time as development of courses. For institutions involving a course-team approach, the task of revision can be long and costly. That is why, unlike the dual-mode university which has a more simple approach to revision by relying on individual academic staff, single-mode institutions use teaching materials for a much longer period of time. For instance, in Indonesia's UT, the printed material is

used for at least eight years before a major revision is attempted. At MU, revision and adaptation to recent changes in the field can be simpler and quicker. The individual course controllers can incorporate new ideas and recent developments in the academic field for the material in the following academic year. Staff can revise their courses constantly in response to developing knowledge and student feedback (Prebble, 1990).

Fluctuation in extramural-student enrolments provides problems for distance-education programs. Funding at MU is open ended, meaning that more EFTSU attract more resources. In 1990, the government developed a new policy that there would be only a maximum of a 4% increase in the government grant to each institution each year, no matter how many students were enrolled. The case of what happened in 1991 was interesting. Extramural enrolments increased by 17%, as a result of a massive publicity campaigning, especially through television. The problem was then what could be done with only a 4% increase in government funding. The University decided the best solution was reduction in the number of extramural papers.

Recently a new funding formula was introduced by the government. Students have to pay tuition fees in proportion to the cost of their course. As a result, many internal students were not able to continue to study in the following year, and so opted to study extramurally, which would be cheaper. This posed a major problem for the University, which recognised it needed to manage enrolments, and plan effectively for distance-education intakes. With limited and inflexible government funding, it was recognised that MU should be

students. Otherwise, the University would find difficulties to serve its distance students.

The University realised it had to move immediately to manage the situation. Three courses of action were considered. First, it seemed necessary to shift existing resources to areas of greatest demand, within as well as between faculties. Second, it seemed necessary to consider on a case-by-case basis those programs which were in great demand, where course costs could be recovered above the normal fees paid. Third, it appeared necessary to critically review the immediate future of all extramural programs. This third option particularly concentrated on, among other things, determination of enrolment quotas and targets, and reduction in the number of extramural papers (Minutes of Meeting, BES, 1991).

Resource management is a crucial challenge, particularly the management of the size of the distance-education program. There has been a recent trend towards substantial increases in extramural enrolments. While more students may mean more income, more students require more and even better services. This means that more resources are also required to meet various student needs. Consequently, more expert management and resource allocation are necessary with a bigger and more complex operation. Better cooperation between academic staff and CUES are necessary to ensure that students obtain high-quality standards of distance tuition (Prebble, PC, 1991).

Another challenge for MU relates to the use of a number of different teaching media and finding the right media mix. Efficient media use requires central strong direction and resource allocation. An important consideration in selecting media should be cost and effectiveness. Print seems highly

likely to remain the major medium of instruction in the next decade, but it is likely there will be increasing uses of computers and other electronic communications. There is no question that the academic content of the MU material is of high quality, but the University recognises that more attention is required to ensure that the material is interactive and communicative. Face-to-face contacts will remain necessary and need to be encouraged, but some students will have difficulties to attend face-to-face classes. Large enrolments will also pose problems as regards on-campus requirements. More regionalised arrangements for meeting with distance students should be encouraged (Prebble, PC, 1991).

The final challenge is competition, because other universities in New Zealand have started to offer courses by distance education, and thus challenge Massey's monopoly of distance-education provision. Competition in terms of program offerings could benefit MU, to some extent, as the University would be encouraged to concentrate its efforts to improve the quality of distance teaching. On the other hand, with funding for extramural students at 80 per cent of internal student funding, it may be unrealistic to expect healthy competition among providers to take place. Funding levels are thus an important issue which requires discussion between the Government and the University, especially if quality improvement of distance education is to be achieved. What might happen instead of quality being enhanced is that institutions may compete to offer distance-education programs in order to generate income.

## Comparison of MU and UNE, and Common Issues for Critical Reflection

Obviously following the UNE model, in many respects MU shares with UNE common characteristics of a dual-mode university with its innate strengths and problems (See: Chapter 6, Strengths and Problems of the Dual-Mode System for further details). As a dual-mode university, MU allows for flexibility and responsiveness to market demand, as courses can be developed over a very short period of time generally by individual academics (Prebble, 1991b). MU distance education enables the ready acceptance of equivalence of standards between the internal and extramural mode. There are, however, some inherent limitations of the MU model, similar to that of UNE, such as those related to quality assurance, the limiting factor of a dual-mode environment, and pressures on staff to meet the different needs of students throughout the academic year.

In terms of administrative functions, both MU and UNE have many similarities as regards the duties to be performed by organisational units within the university (See: Table 11 below). Many of the administrative functions are still centralised within the distance-education unit. Little variation exists, except in enrolments, in which at UNE the function has been devolved to faculties, while at MU it has been devolved to the registry. Policy development is undertaken by the distance-education unit involving coordination with the central administration and academic departments.

Table 11  
Comparison of Various Functions at MU and UNE

Functions	MU				UNE			
	C	F	AD	DE	C	F	AD	DE
Enrolments	X					X		
Examinations	X				X			
Course preparation			X				X	
Course development			X				X	
Course production				X				X
On-campus courses				X				X
Policy development	X			X	X			X
Regional services				X				X
Assignments								
administration				X				X
Student assessment			X				X	

Note:

X = Function predominantly performed by each unit or structure

C = Central administration (Registry)

F = Faculty

AD = Academic Department

DE = Distance-education unit

There are, however, some important variations to be noted between MU and UNE. First, MU distance education is funded at the lower level than internal teaching, that is 80% of internal teaching, compared to UNE which is funded theoretically at the same level. These circumstances make it very difficult for staff and the institution to undertake distance teaching involving extensive investment. This factor may contribute to the problem of quality assurance in dual-mode universities. In Australia, where both teaching modes are funded at the same level, many institutions have tended to underfund distance teaching (See: Harman Report, 1991). There is frequently some degree of financial constraint in dual-mode operations,

because departments lack resources to develop distance-learning courses.

Second, unlike UNE which employs a semester system, MU until now runs on an annual system, obviously following British traditions. The debate over the semester system versus the annual system has not been simply the organisation of course presentation into either "short and fat" units under the semester system or "long and thin" units under the annual system. There also has been debate regarding the cost and complexity of administration and teaching of distance students as a result of the change. The move to the semester system will have considerable pressure on the distance-education operations, such as short deadlines for submission, production and despatch of course materials. It will also have impact on staff as well as students as staff have to prepare the course material twice a year, rather than once, and students will have examinations every semester. The most recent developments at the university-wide level at Massey will have a direct impact on the extramural program. These include a commitment to moving to a semester system; a commitment to quality assurance across the university's operations; and a commitment to aligning departmental allocations and entitlements more strictly on the basis of funded EFTSU (Prebble, PC, 1993). The last two similar trends are also taking place at UNE.

Third, unlike in Australia, where at least eight universities serve as major national providers of distance education at the university level, MU has been the only major national provider of distance education at the university level in New Zealand. Politics can explain this circumstance. Being a country with a Federal political system, individual

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Australian states are constitutionally responsible for the provision of university education, although universities are funded by the Commonwealth Government. In New Zealand, as a unitary parliamentary democracy, decisions made at the national level can be implemented nationally. The small size of New Zealand in terms of geography and demography and the cohesiveness of its society has made that possible. Another example for a national university system was that for a long time, almost since its inception, the country had a single University of New Zealand until its dissolution in the early 1960s. Such circumstances will be difficult and hardly possible to occur in Australia.

Both MU and UNE as dual-mode universities share common issues which deserve critical reflection, such as the need for a distance-education unit; the place of face-to-face interaction and communication with distance students; problems in quality assurance; and the limiting factor of a dual-mode university. There are always questions as to what extent elements such as face-to-face interaction are needed and how these problems, if they are considered as problems, can be handled. Critical reflection can be a helpful and useful means of understanding and addressing the complexity of these problems (Evans and Nation, 1989).

The first issue relates to the need for having a separate distance-education unit. MU has CUES and UNE has DEOLC to organise and administer distance teaching. The roles and responsibilities of such a unit vary from institution to institution, depending on the central administration policy, and even on Government policy. Deakin University in Victoria, for instance, has a centralised system of administration for

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both internal and distance students, leaving the distance-education unit concentrating on policy issues. With the recent trend towards convergence between distance and campus-based education, problems arise as to how the needs of the two different groups of students can be best met by the institution. Many institutions are now under increasing challenge to provide increased flexibility in choice of study modes for students. As a result of these various pressures, many universities are considering some redefinition of roles and directions.

Both CUES and DEOLC have been designed for institutions with small-scale enrolments. However, when the number of enrolments grows considerably and there is little understanding from the academic departments about the complexity of running a large distance-education system, such an arrangement is inadequate, unless the unit is integrated with or is given more decision-making power at the university-wide level. Devolution of functions to faculties or academic departments may create considerable difficulties within faculties and departments, since academics are overloaded with work related to both internal and extramural students. On the other hand, for the distance-education unit, having servicing functions alone is insufficient without any significant authority and influence on quality control of distance education.

At MU, there has been a major effort to integrate the administration of internal and distance students. Enrolment functions which were traditionally separated have been combined in the central Registry. The change goes even further with a commitment to introducing a system of resource management based on a devolved system of allocations and accountability. Under

this scheme, departments will be entitled to a given dollar value of extramural services based broadly on their extramural EFTSU, and they will be expected to purchase these services from the central service agencies such as CUES (Prebble, PC, 1993). At UNE, a similar effort has taken place by devolving administrative functions, however. This leaves DEOLC to re-define its roles to concentrate in areas such as quality control, policy development and liaison with other agencies.

The second controversy deals with interaction and communication, particularly involving face-to-face contact. Interaction and communication with distance students are important elements, and to some degree, involve a face-to-face component between staff and students, such as on-campus courses, regional courses and teleconferences. Because of the relatively smaller enrolments of distance students in dual-mode universities than in most open universities, the dual-mode institutions can provide a more personalised method of distance teaching. This is one benefit which many open-university students cannot have. However, as earlier noted in Chapter 6, one problem of relying too much on face-to-face contact is that academic staff may concentrate too much effort for this purpose, and consequently they may lack the motivation to develop alternative mediated instruction.

There has been recently an increasing challenge to the worth of face-to-face contacts in the light of the increasing use of interactive media methods. Although, generally, extramural students feel happy with the on-campus courses, some of them think that it is becoming too expensive. Many institutions, including MU and UNE, are under increasing pressure from students and for economic reasons are switching

to alternative media to allow interactive communication with students. Many open universities in the developed world have attempted to develop a wide range of media for distance teaching. Some dual-mode universities also have employed modern teaching technology, although there is still important emphasis on the use of personal interaction between students and the academic staff. The most recent development at MU is a commitment towards computer mediated communication, and the scheme will be inaugurated in time for the 1994 academic year (Prebble, PC, 1993).

Historically, one reason for introduction of face-to-face interaction for extramural students at MU and UNE was to gain acceptance and credibility, and to counter the view that extramural studies was inferior and even likely to lower educational standards. This kind of arrangement had even a major influence on more recent distance-education institutions, such as the UKOU, which asks its students to attend summer schools to be held on campus. The use of compulsory on-campus courses poses questions on the extent to which distance learners are really distant or separated from their teachers and institution. It even confronts the theoretical foundation of distance education, where students are (or perhaps should be) at a distance from the teacher.

The third problem is concerned with quality assurance, in which there is no standard quality control and guidelines. Quality control has been a dilemma, particularly as to whether to have a university-wide policy regarding quality standards, or to have responsibility for quality control devolved to academic departments. The distance-education unit, including

procedures, let alone quality control, of distance teaching material and methodologies across the university. The lack of standardised procedures stems from the assumption that teaching departments and individual academics should have freedom in determining the approach used in distance teaching so that the way they teach varies considerably. Few academics employ technology-based distance-teaching techniques. Some use interactive study guides to replace the face-to-face component. Many rely on residential schools to transfer the learning material to the students.

The problem of quality assurance also includes the provision of the same quality of services to both internal and extramural students. Although in theory both types of students should receive the same quality of services, it is unrealistic to expect that they do actually receive the same support and treatment. Extramural students, because of their distance from the main campus, tend to be forgotten. They have very limited access to various on-campus facilities, except when they participate in residential schools just for a very short period of time. Opinions differ as to whether to have extensive outreach or regionalised services or to use technology better to serve distance students. While the former tends to require extensive and costly investment, the latter seems to be more viable and preferable, and perhaps more relevant to the philosophies of distance education.

The fourth problem is the limiting factor in dual-mode universities to keep the two systems of internal and external teaching effectively in place. These circumstances may disadvantage extramural students because they have to adjust to the internal system (Sandbrook, PC, 1991). For instance,

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distance students have to adjust their time for on-campus courses to the internal students' vacation, because that is the only period staff can spend some time with them and the University can provide accommodation for them. There also are administrative problems because of the complexity of dual-mode operation (Shouksmith, PC, 1991). Consideration with regard to resource allocation has to be made with respect to the two types of students and teaching modes (Hogan, PC, 1991).

In a dual-mode system, academics cannot focus their attention on teaching at a distance only, and they tend to see extramural teaching as an insignificant by-product (McLennan, PC, 1991). Under such circumstances, academic staff do not really have enough time to develop the extramural courses properly (McLennan, PC, 1991). There is a further problem in academic staff development teaching extramurally; for instance, some staff do not know how to write study guides in a suitable fashion. In contrast, in a single-mode system, academics concentrate only on distance teaching, as they have no internal students to teach. A dual-mode university, such as UNE and MU, is always faced with conflicts between the two groups of students that have different profiles, needs, teaching modes, and thus require different teaching methods and student supports. Although the idea of providing distance-education programs in a traditional university is often considered as an important innovation, in practice, it is difficult for a university to provide the necessary satisfactory support for both students.

### Concluding Remarks

MU began its life as an Agricultural College in the early 1926. In 1964 it was reconstituted as an autonomous University, and similarly to UNE, it has the duty to accommodate extramural students. In fact, MU is modelled on UNE as a dual-mode institution. However, MU has changed considerably over recent years in terms of its student profile, number of enrolments, diversity of programs, delivery methods of distance teaching, and obviously the management style of its distance-education programs. Major review has also been undertaken to deal with problems of expansion. Government policies in terms of legislation and funding have influenced the way distance education operates at MU.

As a dual-mode institution, MU shares many of its features, strengths and weaknesses with UNE. Among other things, distance education is an extension of its traditional programs. The philosophy of MU distance education is to provide opportunity to those unable to gain access to traditional university education. However, there is also an economic motive to attract more EFTSU in order to be better funded by the Government. As a "semi-traditional" university, MU has strong academic cultures, despite the fact that managerial culture has become more and more predominant in recent times. The presence of distance-education programs has also demanded some sort of industrial procedures in the delivery methods.

Some of the major advantages of the MU distance education are the adaptability and flexibility of the programs to the needs of the client. Distance programs can be developed and



offered over a short period of time, compared to those in open universities. There is also recognition by the community of the awards given by MU irrespective of study modes. However, quality has always been under increasing challenge, as it is difficult to set standard procedures for quality control in a dual-mode university. The conservativeness of the distance-education programs has also been under pressures to change. Despite the merits of on-campus courses, for instance, it is becoming more and more expensive for students to travel to the campus. MU needs to think of alternatives, such as developing regional courses or using mediated instruction.

As a dual-mode university, both MU and UNE have the potential to develop mixed modes of study. A mixed mode system ultimately allows for the convergence between distance and campus-based education, and subsequently for open learning. Dual-mode universities have the flexibility, opportunity and resources to enable students to undertake mixed modes of study. The dual-mode arrangement enables the extension of academic programs to reach wider members of the community, thus allowing for the achievement of mass higher education. In Australia, for instance, with the assistance of the Federal government, distance-teaching universities have collaborated to operate open-learning programs at the university level. These universities have created a consortium, chaired by Monash University, under the umbrella of "Open Learning Agency of Australia."

In New Zealand, MU has been able to offer courses to people who live throughout New Zealand without requiring them to attend on-campus courses. In a country like New Zealand,

considered to be relatively low among OECD countries, these outreach programs can be of great help to raise the higher-education profile and expand mass higher education. In a relatively small country like New Zealand, the creation of a national open university may be ineffective because of the small population it would serve and the limitations on academic resources. MU is thus an attractive solution to provide wider opportunities for adult learners. A further implication is that the issue of the status of distance education through the MU system can be well resolved, as extramural students at MU, according to the community's view, seem to study in a "normal" university and they ultimately receive the same awards as their internal counterparts.

## Chapter 8

## SUMMARY OF FINDINGS AND CONCLUSIONS

This chapter attempts to summarise and discuss findings of the comparative analysis of single-mode and dual-mode universities, particularly highlighting the contrasts between the two systems in various aspects of their management, organisation and teaching strategies. The analysis particularly concentrates on a number of key topics such as physical facilities, teaching and learning processes, course development and staffing, use of media and technology, student-support services, economics and management, and academic and organisational cultures.

It is concluded that single-mode and dual-mode universities have distinctive features of their own in terms of institutional cultures, management style, organisational design and flexibility, although it is difficult to draw clear-cut differences between the two systems. A number of factors -- history, philosophy, politics, economics, socio-cultural and technological change -- have contributed to the establishment of distance-teaching universities, and influenced the decision on whether to opt for a single-mode or dual-mode system. Both generally share many similarities in terms of the general characteristics of the distance-education enterprise, the application of distance-education theories, and their performing of the same broad functions as universities. The two systems have become an important part of national strategies to expand access to tertiary education, to help achieve the transition to mass higher education and to contribute to the development of open learning.



## Comparison of Single-Mode and Dual-Mode Universities: A Summary of Findings and Discussion

The debate about single-mode and dual-mode models has gone on since both systems came to existence (Jevons, 1986; Sewart, 1986), and it has recently shown a new lease of life following a recent symposium on reforms in higher education held in New Delhi, India (Mugridge, 1992). It is now recognised that earlier comparative studies of the two systems were too simplistic and too descriptive. For example, in the early 1970s, a comparative study by Adamson of the UKOU and typical dual-mode Australian universities noted various differences between the two systems in terms of organisation, size, finance, campus buildings, entry requirements, types of courses, methods of course production, course design and media, staffing and learning feedback (Adamson, 1972). This comparison, however, was largely non-analytical and lacked critical arguments. A recent study by Guiton (1992) concentrated only on identifying the characteristics of the two systems without explaining the complexity of their operations.

In the meantime, single-mode and dual-mode universities have both expanded and prospered, as the number of students served has increased dramatically. Other recent developments, such as improved technologies and blurring boundaries between distance and campus-based education, have made much of the earlier debate about which system is better largely irrelevant (Mugridge and Maraj, 1992). The findings of the present study attempt to reveal further the "mystery" and complexity of operations of single-mode and dual-mode universities in order

Three universities, one single-mode plus two dual-mode systems -- Universitas Terbuka (UT), the University of New England (UNE) and Massey University (MU), in three different countries have been studied critically. Since the research involved comparison of complicated phenomena, it is difficult to present the findings in simple formats. Matrices are used to indicate the summary of findings of the comparison of single-mode and dual-mode universities according to a number of parameters, such as physical facilities, teaching and learning processes, course development and staffing, use of media and technology, student support services, economics and management, and academic and organisational cultures. The purpose of the comparison is to highlight the continuum of contrast and similarities of existing phenomena being observed in each institution, and to provide further comment and personal impressions as to the extent of the contrast. Further discussion follows each matrix, and further in-depth theoretical analysis is presented in the following section on "Conclusions" later in this chapter.

For convenience sake, a six-point scale measurement is used to indicate the degree to which a feature or phenomenon exists. The scale ranges from 5, indicating a very strong phenomenon existing in an institution, to 0, meaning the feature does not exist at all. The following describes the meaning of each scale measurement:

5 indicates a high degree of incident;

4 indicates a fairly high degree of incident;

3 indicates a moderate degree of incident;

2 indicates a less moderate degree of incident;



1 indicates a minimum degree of incident; and

0 indicates a very minimum degree of incident or no incident at all.

These measures are based on the writer's estimations, in the light of the analysis and findings of the case studies. They are intended to be suggestive rather than objective measures. It is, however, very difficult to attempt to measure qualitative phenomena in a social institution or an academic organisation such as universities, as some phenomena which are dominant in a particular institutional model also appear in the other model to a lesser degree, or vice versa. When it is possible, the UKOU has been included for the purpose of comparison, based on the literature review.

#### A. Physical Facilities

Even with the physical setting of the campus, there are important differences between the single-mode and dual-mode institutions. It is not exaggerating to say that an open-university campus usually looks more like a factory than a university. What can be seen at the UT campus apart from the administration and faculty buildings are such facilities as warehouses, printing workshops, media-development studios and some hostel-type buildings to hold course-development workshops involving academics from other institutions. These facilities in an open university are as important as libraries, classrooms and laboratories in a dual-mode or campus-based university. Further, with the UT the campus is extended with the development of regional offices, which in many respects are

mini-scale replicas of the main headquarters (See: Table 12 below for further detail, and please note that OU means UKOU).

Table 12  
Comparison of Physical Facilities

Features	UT	OU	UNE	MU
1 The institution has campuses with classrooms and lecture theatres.	0	1	5	5
2 There are significant media production facilities.	4	4	2	2
3 Significant course material production facilities are available.	3	4	3	3
4 Laboratories for practicum are available.	1	3	5	5
5 There are significant library resources for both on-campus and off-campus students.	1	3	5	5
6 The buildings consist mainly of an administration complex and warehouses.	4	2	1	1
7 The campus is extended with regional offices in different areas.	5	5	1	1

The physical set-up of a faculty or department at the UT comprises desks used by so-called academic staff, filing cabinets and a large volume of printed items, mostly drafts of course materials and test materials, to be edited or reviewed by staff. Attached to the wall are white boards with charts, outlining production deadlines and management procedures, rather than lecture notes to be taken down by students. Daily discussion among UT faculty staff concentrate on management issues, such as how many students are enrolled in which units, when a particular program is to be offered and what services



are needed further to help students. In contrast, academic staff in dual-mode universities generally have individual offices with book stacks and personal computers. These offices provide an impression of serious academic business and of an intellectual climate in which the primary concerns are with "traditional" teaching and research.

Most open-university campuses do not have a stimulating intellectual climate which encourages staff or students to work or study on campus. Physically, the campus is not designed to provide rooms and offices that enable staff and students to work together face to face. Generally there is no need for open universities to encourage students to come and make use of resources on campus. Rather, the institution comes to students, in the form of providing the best possible course material and regional support system.

Within the regional centres of the UT, "commercialism" is perhaps the word that may best describe the activity of the office, in which students enrol and pay for the course material or other services. Despite the availability of one or two classrooms for occasional use by students participating in user-pays study groups or tutorials, there is no sign of students "hanging around" regional campuses in this university.

## B. Teaching and Learning Processes

There seem to be substantial differences between single-mode and dual-mode systems in terms of teaching and learning processes (See: Table 13 below for further detail).

In single-mode institutions, the choice of particular teaching

used to teach internal students. Staff and the institution can concentrate on developing methods that are suitable particularly for distance students. Single-mode universities can explore a variety of approaches that best suit the needs of adults learning at a distance. Decisions whether or not to use particular media or on-campus courses can be made on the basis of student needs, rather than on the basis of adjusting to internal students and keeping the two student groups proceeding hand in hand. The slogan "institution rather than teacher teaches in distance education" (Keegan, 1986) best describes teaching and learning processes within UT.

Table 13  
Comparison of Teaching and Learning Processes

Features	UT	OU	UNE	MU
1 Academic staff teach both internal and distance students.	0	0	5	5
2 Academic staff are responsible for the evaluation of student progress.	0	4	5	5
3 There are residential requirements for courses.	0	2	4	4
4 Students learn from printed study guides and resource materials, or self-contained, modularised print material as the main medium of instruction.	5	5	5	5
5 Tutorials are held occasionally.	1	3	1	1
6 Academic staff are responsible for helping students with academic problems and counselling distance students on academic matters.	0	2	4	4
7 Contact between academic staff and students is encouraged and is possible.	0	1	4	4



Open-university students have to study the printed material, with the help of occasional television, radio broadcasts, or voluntary tutorials, largely on their own. Being impersonal, the UT relies much on the students' learning initiative. Only limited communication and interaction between students and staff are possible. Institutions with large enrolments will find it hard to meet deadlines for the distribution of materials unless an efficient system is in place. Such a problem is likely to occur in developing countries such as Indonesia, which has a large and widely-dispersed population and poor communication and transportation infrastructure.

In dual-mode universities, external and internal students differ significantly in terms of the study mode used. Distance students can still have access to on-campus resources, but the frequency of such access is considerably less than with internal students. Dual-mode universities, such as MU and UNE, have been the strong supporters of the importance of communication and interaction between students and academic staff in distance education (Smith, 1979; 1983). Contact takes place through various means such as residential schools, staff visits, week-end schools and several kinds of media. The dual-mode system often seems to be more personal than large-scale open universities. Staff in the dual-mode university usually follow closely the progress of individual students, and provide appropriate support when necessary.

There has, however, been increasing pressures in dual-mode universities to reduce face-to-face contact with students such as through residential requirements. The pressure is coming both from students (who often are concerned about the financial

costs and time away from work) and governments (who are concerned about the financial costs on students, related problems of equity, and the fact that with major national providers of distance education some students must travel long distances in order to attend residential schools). Many dual-mode institutions have a major problem with respect to whether or not to continue to make residential schools compulsory. The University of Southern Queensland (USQ), for instance, has encouraged staff to use telephone conferences to substitute for residential requirements, unless there is obvious reason for conducting on-campus sessions.

#### C. Course Development and Staffing

Course development and staffing arrangements for the two organisational modes of distance education pose different problems because of their different features, requirements and the tasks expected to be performed by the staff (See: Table 14 below for further detail). The UT particularly differs substantially from the UKOU system in these regards. It has no permanent academic staff who write courses, and instead contracts with academics from well-established institutions to write courses. Although these academics are "outsiders" without any authority or power over the institution's decision and policy making, they have control over the academic content of the teaching material. Such a system has been developed as a rational choice to counter the problem of difficulty in recruiting suitable academic staff when academic resources are scarce, and avoid the high cost of paying academic salaries once courses have been developed.



Table 14  
Comparison of Course Development and Staffing

Features	UT	OU	UNE	MU
1 The university has its own full-time academic staff.	1	5	5	5
2 Academic staff are responsible for writing courses for distance students.	0	5	5	5
3 Course development requires rigid procedures of a course-team approach, involving instructional designers and graphic artists.	1	5	2	2
4 Revision is done frequently.	1	2	3	3
5 Outside staff are contracted to write course material and test items.	5	0	0	0
6 Academic staff offer tutorials.	5	5	5	5
7 Most of the tutors are employed by the institution, either as part-time or full-time staff.	0	4	2	2
8 Academic staff are involved in most of the managerial work.	5	2	1	1

At the UKOU, the fact that responsibility for teaching preferences was not to be vested in academic departments led to the adoption of the concept of the course team (Perry, 1976). Essentially each team includes three groups of staff: academics, educational technologists and BBC (British Broadcasting Corporation) production staff. The first task of the course team is to determine the syllabus of the course, then to allocate an equal amount of television and radio transmission time to each of the foundation courses. Each unit of a course consists of the print material, a television and a radio programs. However, despite the high quality, this

approach is a very expensive way of course development and can be justified only if the course materials are used for a very large number of students and have a long life. Therefore, the method cannot readily be adapted to many dual-mode institutions or open universities in developing countries (Perry, 1976), or even used consistently at the UKOU.

There has been substantial debate about the benefits and limitations of the course-team approach (See: Drake, 1979; Costello, 1979; Blowers, 1979; Nicodemus, 1984; and Tight, 1985). Kelly (1987) argues that one problem of employing the OU's course-team approach in the Australian setting is that no institution has a student population and financial support that would justify the high costs of production. It is assumed that many Australian dual-mode institutions have developed within an "extended classroom" framework and it seems unlikely that the situation in Australia is likely to move towards an "industrial framework," involving huge investment, large-scale enrolments of distance students and extensive application of industrial principles as in open universities (Kelly, 1987).

Staffing at UT particularly poses particular problems in terms of training needs, job descriptions and requirements, as staff are expected to perform different tasks from those in the dual-mode or conventional institutions. The so-called academic staff at UT function as program developers and coordinators. With most staff having only a first degree, not too much can be expected from these junior academics, although in-service training, either in national or overseas institutions, has improved the quality of staff. Academic staff at the UT work with the course authors in limited ways, such as making sure that the course materials follow the UT rules and formats.



This poses problems, as courses generally have an eight-year lifetime and, once the courses have been developed, program developers basically have little to do regarding the academic content of the material. In theory the single-mode system allows the institution and its staff members to dedicate themselves to distance teaching, to assisting distance students, and to developing experimentation and new policy directions for the benefit of distance students, without the need for consideration to be given to other types of students and teaching modes for such students. At the UT, however, these are still an ideal expectation for most of the academic staff.

Dual-mode universities generally have staff of their own responsible for preparing and developing distance courses as well as for assessing students. Course development and revision is much easier and quicker, involving only individual academics and with possibly some help from instructional designers when academics see such help as being necessary. However, achieving quality standards in distance education is a major problem in dual-mode universities. To some extent, a number of dual-mode universities also are now moving towards a course-team approach. A specific example is the MBA program developed at UNE involving course-team procedures, and with the material also being used for internal students. Some other units offered at a distance at UNE and MU, such as those in "Geography and Planning" and in "Marketing" respectively are also team-taught (Brennan, PC, 1991; Hobbs. PC, 1993). Academics with dual responsibility of teaching internally and externally can benefit from transfer of experience between the two modes of teaching, and can better prepare the materials



from which both types of students benefit. Normally the distance courses are developed after being offered internally. There are some cases where these courses have no internal counterparts, such as a biological science unit developed by the Botany department at UNE (Brock, PC, 1993).

#### D. Use of Educational Media and Technology

There has been a major debate on the application of technology in distance education, as technology offers both a promise and constitutes a myth, particularly for developing countries (See: Pelto, 1991; Bates, 1991). The promise is that, with the advent of electronic media, some people thought that the reality and effectiveness of the classroom instruction could be simulated in distance education (Pelto, 1991). The applications of new telecommunications and computer technology provide for increased interactivity, more control for the learner, and even global learning network, in a highly cost-effective manner. Bates (1991) uses the term "third generation" distance education, which relies on the use of interactive technology, as opposed to the correspondence teaching using single media ("first generation"), or "multi-media" distance education ("second generation") which involves the application of industrial model and a variety of one-way media, such as UKOU and UT.

On the other hand, the myth is that new technologies require heavy investment in the basic infrastructure of telecommunications network and equipment provision (Bates, 1991). Developing nations generally cannot afford the use of high technologies, such as interactive communication and

computer technologies. The application of new technologies in developing countries have been possible with the support of international agencies. However, these countries eventually have difficulty in maintaining such application when it is no longer supported by international assistance.

The use of new technologies presents some fundamental challenges for many established distance-teaching universities, single-mode as well as dual-mode institutions. Bates (1991) observes that distance-teaching universities based on the industrial model suffer from the disadvantage that their organisation, management and decision-making process is built around the requirement of the mass production of one-way teaching materials. Innovation in interactive technology will prove to be difficult. Radical change in organisation is necessary to replace the traditional collegial model of decision making (Bates, 1991). Dual-mode universities have had a harder struggle in providing courses based on the "industrial" model, not only because of the relatively small scale of their operations, but also because generally a lower priority is given to distance education. Despite these difficulties, dual-mode institutions often have been more ready to experiment with the use of some of the more interactive technologies. For example, UNE has initiated the use of videoconferencing and "talkback" radio; the USQ relies more on telephone tutorials rather than face-to-face on-campus contact; and MU intends to give major emphasis to computer-mediated communication from 1994. As shown in Table 15 below, the use of media and technology in distance-teaching universities varies.



Table 15  
Comparison of the Use of Educational Media and Technology

Features	UT	OU	UNE	MU
1 Written material is the major medium of instruction.	5	5	5	5
2 Some courses have television broadcasts.	1	3	1	1
3 Audiotapes have been used to supplement print material.	2	4	4	4
4 Videos are used for some courses.	1	2	2	2
5 Teleconferences are used for interaction with students.	0	2	1	1
6 Computers and facsimile are used for communication with students.	0	2	2	2
7 Interactive radio is occasionally used.	0	1	2	0
8 One-way radio broadcast is used occasionally to enrich and is integrated with the written material.	1	1	0	0

Most open universities in the developed world have used a variety of media. Advances in technology have enabled institutions to provide a wide range of media in distance education. Cost is usually the limiting factor, and there are obviously educational considerations as well. Distance-teaching institutions are faced with the problem of selecting the right mixture of accessible media. In an open university generally resources can be spent for distance students only, while in dual-mode institutions generally major resources are spent on facilities to benefit both types of students. At the UT, the problem of developing high-technology media is associated closely with cost and accessibility to

students. It is worth mentioning that equipment acquisition is often not a problem, but the real difficulty relates to operations and maintenance. For instance, in 1987 the UT was involved in the "SHARE" (Satellite for Health and Rural Education) project supported by financial assistance from CIDA (Canadian International Development Agency); however, the project discontinued when funding for operations and maintenance was devolved to the UT.

For dual-mode universities such as MU, for instance, television is used simply for promotion, and the television station sells about half an hour air time during off-peak periods. At UNE, a weekly half-an-hour television broadcast has been used for many years through a public-funded station (called SBS) in Australian capital cities. But access by students is limited to those living in metropolitan areas, although it is important to note that a high proportion of the Australian population (approximately 70 per cent) live in such areas. Otherwise a satellite dish is needed by UNE students living in remote places.

In recent times, at UNE the use of television and video has increased because of the University's involvement in national open-learning initiatives supported by the Federal government. For example, course units offered by UNE on "French," "Environmental Studies" and "Australian Studies" provide weekly television broadcasts through the ABC (Australian Broadcasting Commission), the national television network which has a wide access throughout Australia. At USQ, in an effort to reduce residential requirements to the minimum level of only about 30% of the external units offered, teleconferences are used considerably, with scheduling with



about once or twice per semester for each unit. So, contrary to popular belief, the dual-mode system also uses a great variety of media.

#### E. Student Support Services

Single-mode and dual-mode universities approach student support services in different ways (See: Table 16 below for further detail). Large-scale national open universities usually develop regional offices to better serve the various needs of a large number of widely-dispersed students. The UKOU has well-developed extensive regional services and network of tutors. Despite the presence of regional centers, at the UT only limited services are available for students. Regional offices perform more administrative rather than academic duties. Tutorials in regional centres have been conducted with difficulty, because of problems in providing highly-qualified tutors in the more remote regions and in access by some students. Distance and transportation problems are often to be blamed. Many UT students thus do not benefit greatly from these regional offices.

Table 16  
Comparison of Student Support Services

Features	UT	OU	UNE	MU
1 Examinations are held in various centres.	5	5	5	5
2 Regional centres are created to help students with administrative and academic problems.	3	4	1	1
3 Weekends schools and visits by staff are held occasionally.	0	2	2	2
4 Library services are available.	0	4	4	4
5 Regional courses are held as an alternative to on-campus courses.	5	4	2	2
6 Voluntary tutorials are held.	5	4	2	2
7 Guidance and counselling are developed and well-integrated to support students.	1	3	3	3
8 Regional offices are set up to provide administrative services and limited academic orientation and guidance.	5	3	0	1

Most of the UT students are not able to contact staff at the central office. With tutorials being provided only twice a semester, students have no one else to contact when they have problems. As teachers play a dominant role in traditional education in Indonesian society, the independent-learning style required by the UT may prevent prospective students from enrolling. Apart from that, there are inadequate learning resources to support independent student learning. To complicate the matter further, the central administration has been hesitant to provide significant investment directed to developing learning resource centres for remote students.



Limited funding is often blamed for the lack of student support. From the institution's point of view, it is difficult to evaluate how far students have progressed through the material and what course of action to take if students have made inadequate progress.

The issue of "access centres" in dual-mode institutions is an issue of continuing concerns. Dual-mode universities usually operate distance education on a relatively small scale, and so need to centralise administration and student services. Library services too are generally provided from a central library, as are other services such as access to staff advising and residential courses. Instead of having regional centres, both UNE and MU have developed a support network comprising alumni and senior distance students to provide support for external or extramural students. Few regional advisers have been appointed on a part-time basis. The absence of regional offices in most dual-mode institutions is substituted by effective student-support systems and personal links between staff and students. Consideration of costs and small enrolments often prevents dual-mode universities from developing study centres. It should be noted that a small number of dual-mode universities have developed regional study centres. For instance, the University of South Pacific, which like UNE and MU is a small-scale institution, has developed strong regional centres because it has to serve a widely-dispersed population in various island countries throughout the South Pacific. The University of Queensland had a strong system as well, but it was not financially viable.

Opinions differ as to whether on-campus residential facilities are required by students. Frequently, at least



students consider that residential courses are too expensive, because they involve costly travel over long distances, and students have to pay for accommodation and food, and leave their work and other commitments. On the other side, many students find residential schools provide great value and important learning experiences. The result of a recent student survey at UNE indicates that student responses on residential schools have been very positive in favour of residential schools and their continuation. The majority of students (more than 70%) consider residential schools well worth the time and monetary expenditure required to attend (UNE, 1993).

Many staff at UNE basically like residential schools because they enjoy the interaction with external students, and are encouraged by the very positive feedback they receive. Compared with internal students, many staff find external students much more exciting and interesting to teach. They find that many distance-education students are genuinely enthusiastic about what they are studying, they are keen to get as much help as possible during a residential school, and many of them want to achieve the highest grade possible, and not merely satisfy minimum requirements. Many staff believe that a minimum amount of staff-student interaction is necessary to teach their discipline adequately. However, although dual-mode universities such as UNE and MU do not use modern technology extensively, there is still substantial use of teleconferencing, "talkback" radio, videos, audiotapes, computer disks, telephone interaction and facsimile.

Another important issue regarding residential schools is whether such schools should be compulsory. One view at UNE is that residential schools should be optional, but that students

should be strongly encouraged to attend, and that the program at the residential school should be structured in such a way that students understand that to do a good job in pursuing the unit they should make every effort to attend the residential school. Making a residential school compulsory imposes great hardships on some students, such as those on low incomes, those with small children to care for, and those where the employer is reluctant to give leave with pay for work days lost. At MU, there is also a general view that "on-campus" courses should be optional but students should be strongly encouraged to attend, and that regional courses should be encouraged, particularly for course units with large extramural enrolments.

#### F. Economics and Management

The economics and management of the two types of distance-teaching universities are based on different arguments (See: Table 17 below for further detail). Comparative studies of the cost of distance education and conventional education have indicated that the former is cheaper than the latter (See: Rumble, 1987; 1988; Setijadi, 1987; Wagner, 1977). For example, the cost per student at the University of the Air of Japan is considerably lower, ranging from one-fourth to three-fourths, than that at campus-based national, public, or private universities (Muta, 1985; Muta and Sakamoto, 1989). Cost per graduate in the University of the Air of Japan is equal to that of evening programs of Japanese private universities, their day programs, public universities, and national universities, when the graduation rate is 60%, 90%, 25% and 20% respectively (Muta, 1985). Similar findings are



also shown in studies of cost comparison between the UKOU and traditional universities in the United Kingdom, where a high ratio of average cost per student, ranging from 3:1 to 6:1, can be maintained in the UKOU's favour. However, the UKOU's advantage in average cost per student would be of little value if a substantially larger proportion of the students failed to graduate compared to those in conventional universities (Wagner, 1977).

Table 17  
Comparison of Economics and Management

Features	UT	OU	UNE	MU
1 Considerable initial investment is needed.	5	5	1	1
2 Large enrolments are necessary to achieve economies of scale.	5	5	1	1
3 Large enrolments make possible less reliance on government funding.	4	4	1	1
4 The university is run more like an enterprise or corporation.	4	4	1	1
5 Efficient management is considered more important than creating collegiality.	5	4	1	1
6 Administration is centrally controlled by the central office.	5	4	2	2
7 Tasks are delegated to faculties and to the lower level of the structure.	2	2	3	3
8 A specific unit is created to handle distance-education programs.	0	0	5	5

An open university generally requires significant initial investment in order to become operational. However, generally large enrolments can be generated to produce significant economies of scale. There is almost no limit on the size of the student intake in an open university, and open universities require no physical facilities for on-campus students. The more students enrolled the more cost efficient the institution it becomes. With most important administrative functions being computerised, such as the record system, examinations and registration, the single-mode university can handle a very large number of students. The challenge for open universities is to provide the high-quality services for a very large number of students, who are widely dispersed and have different needs. Distance students need individualised services instead of group services such as organised classroom lectures, and so adequate planning is vital in a large-scale operation.

The cost of services remains a major concern for open-university administrators. At the UT, more than 50% of the total revenue comes from students, such as through the sales of the course material and tuition fees, with the balance coming from government funding. Although economies of scale can be achieved, the cost of providing adequate support services rises proportionately to student enrolments, considering the diverse needs of students. For instance, some UT students can afford user-pays tutorials, while many of them cannot attend even voluntary tutorials. Few students may have personal computers, while the majority of students do not have even a typewriter or a telephone. When the UT attempts to provide services for students, it needs to consider the varied



by students. Different students need different services.

The single-mode institution tends to have a centrally-controlled administration. This is logical, as it has to manage a huge number of students and wide-spread staff. Decisions often have to be made quickly at the central office. Overcentralisation, however, can have adverse effects on institutional efficiency. Some functions have to be decentralised. At UT, for instance, registration, examinations and data processing have currently been devolved to regional offices. Decentralisation has to be undertaken cautiously, as regional areas have different facilities and different level of capabilities or readiness to undertake various administrative functions. Central supervision is still required to ensure quality standards for services in different regions.

Dual-mode universities generally have considerably lower enrolments than open universities, and MU and Australian DECs have small enrolments by open-university standards. There is a paradox of low enrolments in dual-mode universities. The major drawback of the low enrolment is that it can be difficult to achieve economies of scale for distance-education courses. Administrators in dual-mode universities are very concerned about the cost of offering low-enrolment course units externally, so often they try to eliminate these units. Many course units in the upper level naturally tend to have lower enrolments than in the lower level. Despite the low cost of initial infrastructure, as dual-mode universities develop from campus-based institutions, it remains expensive to run distance-education programs, considering the scale of operation and the range of services to be provided by the institution.

On the other hand, low enrolments enable the institution and staff to maintain reasonably adequate contact and rapport with students. The relatively small scale of operations makes possible the provision of better academic and administrative support services, such as library support, personal contact, and guidance and counselling support for distance students. The organisation of on-campus residential schools on the main campus is possible. This is particularly the case in the UNE and MU where residential college accommodation is vacated by internal students during term breaks, and so can be used for distance-education students.

In recent times, managerial values have become more and more dominant in all kinds of universities, because of escalating Government intervention, the calls for public accountability, and the increased size and complexity of institutions. Senior university administrators are often in a very difficult position to defend the interests of the academic community, and at the same time to act responsibly with external funding agencies. Many academics complain about the loss of institutional autonomy, but it is widely accepted in the community that the Government has a legitimate right to decide what universities should do to assist economic and social developments in each country. As a result, for the contemporary university, the ideas of being "community-oriented" (Teather, 1982) and developing partnerships with other agencies are becoming increasingly important, rather than being seen as an "ivory tower." It is also worth mentioning that both UNE and MU have sought to expand distance-education enrolments not only to increase access but also to achieve economies of scale and increased



overall funding from the government.

#### G. Academic and Organisational Cultures

Many open universities have strong industry-like operations requiring strong central management and the application of industrial management principles, such as specialisation of function, division of labour, and so forth (Peters, 1983). The single-mode system, particularly at UT, exhibits a more bureaucratic management system and a more hierarchical structure than most dual-mode universities (See: Table 18 below for further detail). This is because it is organised substantially differently from conventional institutions. With strong bureaucratic authority and a strong centrally-controlled administration, conflicts of interests among students, staff and administrators are usually effectively handled by senior management in most open universities such as the UT, although implementation of decisions takes a considerable time. For instance, when there is a delay of registration, despatch, or examination results, all that students and regional offices can do is to wait for decisions made by the central administration because students and regional centres are widely scattered geographically and they have little potential to organise in the way that campus-based students can.

Table 18  
Comparison of Academic and Organisational Cultures

Features	UT	OU	UNE	MU
1 Academic cultures are predominantly present at all levels.	2	3	3	3
2 The presence of academic cultures is apparent in the teaching departments.	2	3	5	5
3 Collegiality is a norm in most academic decision making.	1	2	4	4
4 Managerial culture is dominant, so decision making is often based on rational management, particularly at the higher level of the structure.	5	4	3	3
5 Developmental culture, which values creation of programs and professional growth of staff, is encouraged.	2	5	5	5
6 Negotiating culture is important in almost all levels of the structure.	1	3	5	5
7 Negotiating culture is vital at the higher level.	5	5	5	5
8 Decisions related to academic matters rest with the academic departments.	0	4	5	5
9 There is consultation between academic departments and the distance-education unit.	0	0	4	4
10 The organisational structure indicates strong bureaucratic and hierarchical systems.	5	4	3	3
11 The presence of industrial cultures is dominant particularly at the operational level of distance education.	5	4	4	4
12 As a social institution, it has to meet the interests of various groups, involving organisational conflicts and politics.	1	4	5	5



While an open university may have a structure which superficially resembles that of a conventional university, its resource-allocation process is different. Operational units, such as the distribution centre and the large-scale audio-visual production centre, which often simply do not exist in traditional universities, must have vital roles in an open university. What deans and staff do in an open university is significantly different from what their colleagues do in conventional institutions, because faculties in the two systems have different functions and resource needs, and they require different processes of resource allocation.

All universities which employ academic staff usually have elements of an academic culture, but such an academic culture tends to be weak in open universities where other forms of organisational culture tend to be much stronger. For instance, open universities, such as the UT, require a strong management and negotiating culture at the highest level of their structure; as such institutions need efficient management and, when they depend on the cooperation of a number of agencies and other institutions in order to operate, they need a culture that supports negotiation. Senior executives need highly developed political and financial skills to be able to negotiate effectively with funding agencies and participating institutions. The centralised administrative system of the UT, however, may also be traced in part to Indonesia's culture of centralised administration. Many decisions regarding business life of the University involve serious consultation with the higher level of the government bureaucracy, such as the DGHE, rather than being made by the University itself.

On a broader scale, it is difficult to make comparisons of cultures among different nations, especially since what is accepted as norms in a particular society can be interpreted differently in other societies. Differences of academic cultures between universities in developed and developing countries can be attributed, at least in part, to different cultural values, traditions and philosophies. In a paternalistic society like Indonesia, for instance, challenging a superior openly is considered improper conduct. Confrontation is avoided and consensus is generally preferable as a means of solving conflicts and disagreement. Harmony is more important than efficiency. In fact, it is somewhat difficult to attempt to analyse even a modern Indonesian social institution using the Western theoretical framework of cultures.

Dual-mode universities in developed countries tend to have strong academic cultures. One reason is that they are generally fairly conservative and traditional institutions which draw on long established traditions about academic freedom, collegiality, and the role of academics in institutional governance. But perhaps, more important, dual-mode universities have large numbers of academics on the campus, arranged in departments or schools, generally on disciplinary lines. This makes it easier for consultation between academics, and much easier for academics to take various kinds of political action should they wish. In addition, departments and schools generally are led by professors who believe they have considerable academic authority in their respective fields of study, and they and other academic staff have an easy way of communicating their



views to senior levels in the university through faculties and the academic board. Academic staff in a dual-mode institution also soon become socialised into a very supportive academic environment, which values a maximum degree of independence and personal autonomy, and where within departments collegiality is usually strong.

Dual-mode institutions generally have the organisational structure of a conventional university, and their administrators generally perform duties of a similar type to those that their colleagues perform in the campus-based university with no involvement in distance education. The dual-mode university has a less industrial type of operation, although academic staff also have to follow certain industry-like procedures, such as meeting deadlines for the development and production of course material. Nevertheless, within the distance-education unit, there are some industrial management processes, in which there are various specialised activities such as mailing, management of records, distribution of assignments and typing drafts of course materials, although these activities are in a significantly smaller scale than in open universities.

## Conclusions

Whether it is called a "single-mode" or a "dual-mode" university, both are important educational institutions, which provide significant contribution to improve access to and offer opportunity in university education. As Rumble (1986) has pointed out, experience indicates that systems with similar goals can be organised in many different ways, reflecting

philosophical, cultural and technological differences, as well as differences in size and geographical coverage, and there is therefore no "right way" of organising a distance-teaching university. Based on the case studies of three universities in Indonesia, Australia and New Zealand and comparative analysis of the single-mode and dual-mode universities, a number of conclusions can be drawn. Single-mode and dual-mode universities possess marked contrasts in a number of areas such as institutional cultures; management style and organisational design; the roles of politics and Government policies; history and philosophy; openness, closure and flexibility; and economic and socio-cultural contexts.

The first major difference to note is associated with the dominance of industrial and academic cultures in single-mode and dual-mode universities respectively. While the single-mode university is dominated by industrial cultures, the dual-mode university generally has strong academic cultures, which differ significantly from industrial cultures (See: Peters, 1983; Bergquist, 1992; Clark, 1983). In a single-mode university, the ideas of industrial production are effectively in place, and staff have a clear job description in respect to particular industrial procedures, such as data entry, wordprocessing course materials, editing course materials, packaging course materials and processing examinations.

In dual-mode universities, academic departments and faculties play important roles in decision-making processes, while academic staff have strong cultural attachments to their discipline, their profession and the academic system within the university (Clark, 1983). Often their commitment to their institution is far less than their commitment to the discipline



and the academic profession. The challenge for single-mode universities is to encourage the development of academic cultures, while the challenge for dual-mode universities relates to the reconciliation of the two different cultures.

Staffing, for instance, poses difficult problems. Becoming a new academic staff member in an institution such as the UT can be very distressing, because many of the kinds of tasks to be performed are different from a person's expectations and perceptions of becoming an academic. There is also the question of how academic staff in the UT can develop their academic interests. Using Bergquist's term, there is a problem related to the realisation of an academic developmental culture in single-mode universities such as the UT. In a dual-mode university new academic staff, who have preconceptions of academic cultures as those put forward by Clark (1983), share a somewhat similar experience to that of staff in a single-mode institution, as they too have to cope with a rigid academic calendar, deadlines for submission of teaching materials, and requirements to follow specified procedures. However, such academic staff have substantial, traditional academic duties, which give them more flexibility and autonomy, such as in teaching internal students and conducting research. Without proper induction for academic staff in single-mode universities, it will be very difficult to adjust to a totally "strange" work environment, and as for the institution, it will be difficult to expect high productivity of the staff.

All four academic cultures (collegial, managerial, developmental and negotiating) as identified by Bergquist

but with different emphases and very weak existence in open universities. In open universities at the lower operations level there are clearly obvious industrial procedures that is to be strictly followed, but at the top level of the management structure, a university culture is present. Senior administrators refer to traditional university values and assert an open university is a proper university, but of necessity major concern about efficient management is often predominant.

In dual-mode universities, on the other hand, collegiality remains the dominant norm, and consultation in decision making on academic matters is usually followed. For instance, at the university-wide level, the recent amalgamation and de-amalgamation processes at UNE provide valid evidence of strong academic cultures, particularly a collegial culture. The contrasting views of staff members and administrators as well as students regarding centralisation or devolution of distance-teaching services at both MU and UNE offer other evidence of the dominance of academic cultures in academic decision making.

The second major difference is about management and organisational styles of each of the distance-teaching universities. While the single-mode university generally has a strong enterprise-management style and develops a significant bureaucratic system (Balderston, 1975: Baldrige, 1971a), the dual-mode university can be considered as being somewhat of an "enterprise" and a political institution. In an open university, for instance, Professor Setijadi described the UT as a "management university," meaning that it manages academic resources and facilities already available in existing



universities, in contrast to as a "resource university," meaning that it develops its own academic resources, such as libraries, academic staff, research laboratories and other infrastructure needed as a university. Being a "management university," requires the UT to adopt some key values of business management, such as "marketing" of course materials, effective "planning" based on accurate enrolment projections, and effective "coordination" with participating agencies and universities. These concepts also are closely interwoven with the idea of industrial management and production.

Dual-mode universities, on the other hand, can be considered to be largely "political institutions" (Baldrige, 1971), which value collegiality rather than bureaucratic authority and in which different interests play key roles in most decision-making processes (Millet, 1962). In the dual-mode institution, institutional autonomy and academic freedom are important issues, while in most single-mode universities generating revenue and achieving economies of scale are regarded as being more important. It is true that collegiality and autonomy always exist in academic organisations, particularly traditional universities. However, contemporary universities have been under increasing pressures to adopt manageriality as opposed to pure collegiality in various aspects of their lives. University administrators are nowadays concerned not only with preserving these traditional norms, but also with the development of appropriate checks and balances. "Enterprising" -- to borrow Balderston's idea -- is probably the spirit of today's university, because the increasingly limited resources available and other external

income. A good example is the recent initiative at the UNE to create "University Partnerships," a commercial arm which links the University and the community which may require its services and expertise.

The third major difference deals with politics and government policies. The three case studies have revealed distance-teaching universities that were created by governments which had different priorities, policies, and objectives regarding university or higher education. In Indonesia, the single-mode open university is seen as a viable response to the problems of increasing college-age student numbers and expanding access to university places. Developing distance-education programs in conventional universities would have been very difficult, as these institutions are still struggling to provide adequate services for their traditional students. Apart from that, the establishment of the UT has been supported by international agencies, including the Canadian International Development Agency (CIDA) and the World Bank.

Politics and government policies have so far been crucial in the development of most open universities. In Indonesia, the UT was created under a "Presidential Decree" as a national open university. One important recent mission of the UT has been the large-scale re-training of primary-school teachers by the UT using various methods of distance teaching. In the United Kingdom, it was the idea of the "University of the Air" originating from Sir Harold Wilson, as leader of the Labour Party and later Prime Minister, which led to the development of UKOU in 1970 (Perry, 1976). Both the UT and the UKOU were



and to meet the challenge for improving access and participation in university education. A wide range of programs at the post-school levels, ranging from vocational-training certificates to degree programs, was offered by the UT on a large scale, suitable to the needs of a developing nation which has large population and limited resources.

The development of the two dual-mode universities was spearheaded by a combination of local and regional politics and meeting the needs of the rural population, blended with a desire to develop a more egalitarian philosophy of independent study (See: Wedemeyer, 1971), and increasing access and offering better opportunities for university education. The main early enrolments of distance students at both UNE and MU were underqualified teachers who lived in rural areas and could not attend conventional university training. In Australia, most states have a designated major Distance Education Centre, and because of the Federal political system, it would be very difficult to develop a single national open university. More recently, however, a number of universities have agreed to cooperate with the support from the Federal Government to develop a national "Open Learning Agency." In New Zealand, MU was granted a status as a major national provider by the University Grants Commission, although other New Zealand universities have recently challenged this monopoly. In Australia particularly the challenge for the "tyranny of distance" -- to borrow Northcott's term -- was met with no alternative other than "distance education."

The fourth major difference between single-mode and dual-mode universities relates to technological foundations and economic factors. Single-mode institutions in developed countries such as the UKOU have been created following a significant "technological revolution," particularly in the field of mass communication media, such as radio, television, video, and more recently in computer technologies, although self-contained printed material remains the classical major medium of knowledge transfer. Involving extensive initial investment and the potential for large-scale production of learning or knowledge "commodities" for "mass consumption," technological innovation has made open universities operable in various countries. Open universities have become an attractive model for developing nations, particularly those with large populations. For Indonesia, however, it was basically economic reasons that led to the development of the UT, which until now still relies on print materials and does not use modern technologies to any great extent.

Ideas about economies of scale are closely intertwined with ideas of mass production (Peters, 1983) and enterprise management (Balderston, 1975). There is significant potential for open universities as mass producers and publishers of course materials. The UKOU, for instance, has become a major international producer of academic materials and textbooks within a very short time. The UT is the largest producer and publisher of university textbooks in Indonesia, since no other institutions or commercial publishers have operated on such a huge scale. It produces thousands of sets of modules for more than five hundreds of course units in various disciplines. The



the University income has been generated, include many beyond its own students. To "market" its products, the UT has developed links with a commercial network of bookstores throughout the country and has made the course materials available in the regional centres.

Dual-mode universities, particularly UNE and MU, were created in the 1950s and 1960s respectively, when technology was still relatively "primitive," when computer technology was just being developed, and when colour television was not even introduced. Correspondence was the core medium of distance teaching, supported by occasional face-to-face contact and visits by staff to students as interactive technology was unavailable (See: Bewley, 1982; Sheath, 1965). In recent times, because of their relatively small scale of operations, however, it has been possible for dual-mode universities to adjust to new technological changes in a more flexible fashion (See: Bates, 1991). For example, UNE has developed the use of videoconferencing for distance education, while MU has recently made a greater commitment to using computer-mediated communication technologies. The USQ is ready to develop computer-aided learning package for its foreign language and engineering course units.

For institutions like UNE and MU, being located in a rural area with small populations, the provision of distance education is one way of gaining an economic benefit through added EFTSU from distance students, apart from other egalitarian objectives. Dual-mode universities are suitable to operate on a small scale, where the market is small and diversified, and where program offerings demand a high

materials is a more complex issue than many imagine. Distance-teaching in dual-mode universities is generally based on personal contacts. Thus course material may tend to be more personalised than being developed for general purposes, which can be read by the public. However, some dual-mode universities, such as Deakin University, have developed a more systematic approach to course development so that the instructional products can be "marketable" beyond their distance students.

The fifth major difference can be seen from the points of view of history and philosophy. While most open universities were created in the era when the ideas of open learning and distance education had become widely accepted, dual-mode institutions such as UNE and MU were created when the more elitist and more traditional views of higher education were dominant. The idea of correspondence or non-traditional instruction was treated with indifference and by many academic staff suspicion (See: Sydney University Professorial Board in Smith, 1979). Most open universities, in contrast, were built in the era of rapid information transmission, when society was becoming highly information-oriented and the "information society," to use Naisbitt's terminology, were becoming a reality. Open-entry requirements also were a dominant issue, and universities were under increasing pressures to open their doors more widely to accommodate young people from a much wider range of socio-economic backgrounds.

The idea of mass higher education gained a momentum and major attention in the late 1960s and early 1970s (Trow, 1974; 1976). For countries like the United States, the need to develop a mass higher education system was met with the easy



access by students to a wide variety of tertiary institutions, ranging from community colleges to universities specialising in higher degrees and research (Brubacher, 1982). In a traditionally elitist higher-education system like Britain, a radical change was necessary, and the need for better access to university education was met in part by a radical innovation. The creation of the Open University was thus a radical answer for the challenge of expansion in tertiary education. This idea quickly spread to developing countries, which have had high expectations of the promise of an open university. Indonesia founded the UT on some of these general philosophical motives. However, many open universities still have problems relating to credibility and acceptability of the awards by the community at large, because of the radical departure from traditional universities.

Many dual-mode universities, such as UNE and MU, were developed in the period of the slower postal information transmission, before the use of air transport for mail and before the use of facsimile machines, and on a philosophy of an "extended classroom" framework (See: Kelly, 1987). The UNE and MU, as already noted, were established during the period when there were still hostile academic attitudes towards distance education. Both accepted responsibility to offer distance-teaching programs, as other universities had no interest at all, and even considered these programs as an unrealistic educational enterprise during that period. The dual-mode system has made possible the recognition and acceptance of awards by the public at large irrespective study modes.

During the period of Post-War reconstruction in the late 1940s, adult education had an important priority, in both Australia and New Zealand. For instance, at UNE, the first Vice-Chancellor, Dr. Robert Madgwick, was a former senior army education officer who had developed strong interest in adult education. This period of Post-War reconstruction necessitated Australia to provide extra university places for ex-service military members. Another group of the population which needed help in upgrading their qualifications were underqualified teachers living in remote areas in New South Wales. As teachers and ex-service students were adults, it would have been impractical to require them to become traditional campus-based students, and external teaching was chosen as a sensible alternative, although the approach used was different from that developed then at the University of Queensland (UQ) which predated UNE. (It is important to note here that the UQ, being the first Australian distance-education provider in 1911, had involved the separation, rather than the integration of internal and external teaching, in which a separate department was created to handle external students and separate academic staff taught external students exclusively.)

The sixth major difference centres around flexibility of each of the organisational arrangements. The term "open" contains paradoxes and contradictions of "openness and closure" (Harris, 1987). Many "open" institutions in fact are not that "open" in its broadest sense. Rather there are limits to their flexibility and openness, although open universities do employ various methods of distance teaching. Open universities require strict schedules and procedures which students have to



from courses, take examinations, attend tutorial meetings and listen to broadcast materials at particular times specified by the institution, otherwise they cannot be enrolled or will be denied access to examinations. Open universities sometimes are relatively inflexible to respond to changes in market demands. At the UT, it takes a relatively long time for programs of study to be approved by the DGHE prior to being developed, and later to be offered to students. To obtain approval often requires micro-political efforts, such as constant negotiations and "good connections" with senior officials in the DGHE. In UKOU, the use of the "course-team" procedures may have contributed to some inflexibility in program offering.

The idea of open learning, which relates to student's freedom of choice of study modes, and a variety of media and subjects as defined by Johnson (1990), for instance, may be wholly inapplicable in institutions like the UT and UKOU. At the UT, for instance, the idea of "openness" relates to open-entry requirements, in which students who have any kind of high-school level certificates can be enrolled. Those who have no high-school certificate can still have access through matriculation. Students have freedom whether or not to buy course materials, to join study groups, or to attend tutorial classes. Combining flexible study modes is difficult, because credit transfer is impossible, even among campus-based universities.

Dual-mode universities tend to be more responsive to demand for programs based on student needs than open universities. The use of individual course development allows UNE and MU to develop a wide variety of programs, from undergraduate certificates to advanced degrees, over a very

short period of time. The idea of convergence between campus-based and distance education can be well accommodated by dual-mode institutions (Smith and Kelly, 1987), and this will eventually the apply to idea of "open learning" (Johnson, 1990), in which students have a high degree of freedom and flexibility to determine their learning needs.

To some degree, "open learning" has been implemented in Australia and New Zealand. For example, Australian students have a more flexible choice whether to study on-campus or off-campus, or to enrol in a particular university and gain some credits from other universities which offer particular units of interest to the students. The "Open Learning Agency" facilitates credit transfer among universities. In New Zealand, MU students also have a choice to take course units from other universities which can be recognised for credit by MU. Credit transfer is possible when there is close collaboration and cooperation among institutions. Nevertheless, there is still duplication in the provision of distance education by Australian universities because of the Federal political system and because of differences in organisational cultures in each university (Bynner, 1985).

Despite the differences as already discussed, both single-mode and dual-mode universities have common similarities as regards the characteristics of their distance education, their broad functions as universities, and their contribution to increase access to and participation rate in university education. Both systems have contributed a significant part of a national strategy to educate the population.



As a distance-teaching university, both single-mode and dual-mode institutions share similar characteristics of distance education (See: Keegan, 1986, 1990; Rumble, 1989). Students and teachers are separated for various reasons, and instruction is mediated by various means. The ideas of independent and autonomous learning, industrial theory, and the importance of interaction and communication in distance are all in place in both distance-teaching systems. No distance-education system in the world abandons these principles.

However, emphases on the application of particular aspects of distance-education theories vary in the two systems. For instance, single-mode universities, particularly the UT, are generally impersonal or institution-oriented, meaning that the role of the institution itself as a whole is more important to students than its individual staff. Dual-mode universities rely significantly on personal contact between staff and students. The former are more "user-friendly" than the latter, offering "friendly" or "tailor-made" services for students, rather than "institutionalised" and "uniformed" services as those offered by large-scale open universities. There is no need for both systems to reconcile these differences in emphasis because of the differences that are so great between the two.

Both single-mode and dual-mode universities can make a significant contribution to a national strategy to educate the population. They can help expand access and assist the transition to mass higher education. Both have a similar potential contribution to make to open learning. In dual-mode

the idea of open learning may be achieved through convergence between campus-based and distance education, and through credit transfer among institutions, although in recent times the Australian public also have access to televised open-learning programs broadcast through the national television network. In single-mode universities, the contribution is through access by the wider community to academic textbooks and materials, which are widely marketed. They both help create a "learning society" -- to use Peter Drucker's term.

Both kinds of universities have similar traditional functions as universities, such as teaching, research and community service, although the emphasis given to each may again vary. Teaching is the central function of distance-teaching universities. Research is a difficult endeavour in open universities. For example, the emphasis for research in the UT is on institutional research in distance-teaching methods and management, aimed at improving institutional practice. Disciplinary research, which is also difficult even in conventional Indonesian universities, is out of question. In both UNE and MU, discipline-based research is well-developed, particularly in academic departments which have highly qualified staff and adequate research infrastructure. In other departments, much depends on the initiative of individual academics to undertake research. Community service is performed through increased access of open-learning materials and broadcasts by the public.



## Implications

Distance-teaching universities, regardless of organisational modes, can learn from each other through close collaboration and cooperation in developing distance-education programs, as there are general patterns to be followed among distance-education institutions. For the UT, for example, cooperation with other agencies such as the Open Learning Institute (OLI) in Canada has enabled the transfer of experience and expertise. It has proved that a Western institutional model can be applied in a developing country like Indonesia with necessary adjustments to suit national needs and the local culture.

The recent Indonesian "Government Regulation on Higher Education (Number 2/1990)" attempts to devolve more autonomy to institutions to develop programs and manage financial resources. More recently the introduction of the "Ministerial Decision on the Provision of Distance Higher Education" allows conventional universities assigned by DGHE to offer programs by distance education. Indonesian conventional universities could possibly benefit from considering the experience of Australian and New Zealand dual-mode universities in running their distance-education programs.

Experience in Australia and New Zealand has indicated that distance education can be successfully developed and operated in traditional universities, involving the same staff who teach and assess the same course as taught to traditional internal students. In a country like Indonesia where academic resources are scarce, a dual-mode system seems to offer a promising alternative, and traditional Indonesian universities may

consider becoming dual-mode institutions. If this is to happen, it will be very difficult for these universities to develop programs in areas already well-developed by the UT. But there are areas where the UT does not offer programs and where traditional universities are strong, such as in engineering sciences and technology, both of which are of primary importance to national development.

Some problems may arise with the development of dual-mode system in Indonesia. Many traditional universities in fact have very limited resources even to serve their traditional students. Developing distance-education programs in traditional universities thus could lead to diverting already scarce resources, which could have the consequence of decreasing quality of services to both traditional and distance students. Quality assurance would become a major challenge for such universities developing distance-learning courses. One alternative to counter this problem would be through developing collaboration among universities in offering particular programs of studies, thus building on strengths already possessed by individual participating institutions in particular fields of study. It could also be worth considering the possibility of using course materials already developed by the UT, particularly for general or "first-year" course units which can contribute to programs developed in dual-mode universities.

As the regulation allows for higher-education institutions generally to develop distance-education programs, there is a potential problem of course duplication in offerings by dual-mode universities. One alternative to solve this problem



rather than individual universities serving as national providers, since the UT has already served as the major national provider. While in Australia, because of its federal political system, it has been difficult for the federal Government to develop a single national provider, it would be possible for Indonesia, being a unitary country, to develop appropriate legislation and regulation that suit the country's regional and national needs.

However, it should be noted that further development of dual-mode universities in Indonesia rests with the government initiatives rather than individual institutional initiatives. Unlike universities in Australia and New Zealand, where initiatives to offer a particular program of study come from the academic department which sees potential market demands for a particular program, Indonesian universities follow a top-down planning approach, in which Government policies determine what universities should do, even in terms of offering particular courses. Universities generally implement those policies developed by the DGHE within the Ministry of Education and Culture, which sets out general higher-education policies based on the "State Basic Policy Outline" on national development (Garis Besar Haluan Negara or GBHN). Although in theory any Indonesian traditional university may offer distance-education programs, in practice no university has already done so, as such programs would first have to be approved by the DGHE.

It is worth noting that the current educational priority in Indonesia is on secondary education, following the achievement of universal access to primary education in the 1980s. Probably the transition to achieve mass higher education in the early 21st century, following the

achievement of mass secondary education at the end of the decade, and the ideas of distance education and open learning would then be most important to help achieve this transition. It is not exaggerating to predict that the development of dual-mode institutions would be a viable and reasonable way to improve access within a mass higher-education system, with respect to the current system of Indonesian higher education, in which there are extremely limited places in only about 45 state institutions, and there are private higher-education institutions which charge extremely high fees.

When further comparative research is to be conducted in the future, there are some cautions to be considered. Comparative studies, including the present study, have some drawbacks. Institutions in different nations, despite the common name of "university", have characteristics of their own, determined by the context in which they have been established (Clark, 1983). Each has differences, not only in the ways it does things but also in its philosophical orientations, missions and cultures. For example, most distance-education programs in universities in the developed countries have been created to provide "second-chance education," while the main objective of the UT is to offer a "first alternative" for young high-school graduates denied access in state conventional universities. The problems faced by universities, either of a campus-based or a distance-teaching kind, in developing countries are different from those encountered in developed countries.

There are also varieties of organisational models in both single-mode and dual-mode universities. Some open universities have their own students staff, while other, such as the UT, has



not. Some dual-mode universities set up a specific unit to deal with distance students, and the unit employs its own administrative and academic staff separate from the mainstream academic departments. It would be interesting to know more about the human aspects within both systems, how people feel and what people think within each of the organisational modes, and how people could and should contribute more effectively to distance education in both systems. As the characteristics, strengths and weaknesses of the dual-mode and single-mode system have been revealed, it would be useful to develop a framework or theoretical model for each of the systems. It is true that a theoretical model rarely replicates the complexity of the real world; however, models are useful to guide our understanding of phenomena and implementation of particular policies.

## REFERENCES

## A. BOOKS

- AAOU (Asian Association of Open Universities)  
 1989 Proceedings of the Seminar on Open Universities of Asia: Problems and Prospects. Islamabad, Pakistan: Allama Iqbal Open University and AAOU.
- ACU (Association of Commonwealth Universities)  
 1989 Commonwealth Universities Yearbook 1990 Volume 3. London: ACU.
- Adamson, H.  
 1972 Some Lessons from the Open University. (Forum on External Studies, 1972:1-13).
- ADB (Asian Development Bank)  
 1987 Distance Education in Asia and the Pacific Volume II: Proceedings of the Regional Seminar on Distance Education. Manila: ADB.
- Adelman, C., Jenkins, D. and Kemmis, S.  
 1983 Rethinking Case Study: Notes from the Second Cambridge Conference. (Bartlett et al., 1983:1-10).
- Altbach, P. G.  
 1989 Twisted Roots: The Western Impact of Asian Higher Education. (Altbach and Selvaratnam, 1989:1-21).
- Altbach, P. G. and Selvaratnam, V. (Eds.)  
 1989 From Dependence to Autonomy: The Development of Asian Universities. Dordrecht, The Netherlands: Kluwer Academic Publishers.
- Arger, G.  
 1987 Talking to New England: Interactive Radio in Distance Education. (Evans and Nation, 1987:73-93).
- Atkinson, R., McBeath, C. and Meacham, D. (Eds.)  
 1991 Quality in Distance Education. ASPESA Forum 1991. Bathurst, NSW: ASPESA.
- Atmakusuma, A. et al.  
 1974 The Role of Provincial Universities in Regional Development in Indonesia: An Assessment. Singapore: Regional Institute of Higher Education and Development.
- Baath, J.  
 1979 Correspondence Education in the Light of a Number of Contemporary Teaching Models. Malmö, Sweden: Liber Hermonds.
- Balderston, F. E.  
 1975 Managing Today's University. San Francisco: Jossey-Bass.

- Baldrige, J. V.  
1971 Power and Conflict in the University. New York: John Wiley and Sons, Inc.
- Baldrige, J. V. (Ed.)  
1971a Academic Governance: Research into Institutional Politics and Decision Making. Berkeley, CA: McCutchan.
- Baldrige, J. V.  
1971b Introduction: Models of University Governance -- Bureaucratic, Collegial, and Political. (Baldrige, 1971a:1-19).
- Bartlett, L., Kemmis, S. and Gillard, G. (Eds.)  
1983 Case Study Methods. Geelong, Victoria: Deakin University.
- Beeby, C. E.  
1985 Introduction. (Owens, 1985:9-16).
- Bergquist, W. H.  
1992 The Four Cultures of the Academy: Insights and Strategies for Improving Leadership in Collegiate Organizations. San Francisco: Jossey-Bass Publishers.
- Best, J. W.  
1977 Research in Education, 3rd Ed. Englewood Cliffs, NJ: Prentice-Hall, Inc.
- Bewley, D.  
1970 Extramural Studies at Massey University the First Decade. Palmerston North, New Zealand: Massey University.
- Bewley, D.  
1982 Correspondence as the Core: The Center for University Extramural Studies, Massey University. (Teather, 1982:89-101).
- Bewley, D.  
1984 New Zealand: Complementary "Qualified Monopolies." (Smith, 1984:89-94).
- Birnbaum, R.  
1988 How Colleges Work: The Cybernetics of Academic Organization and Leadership. San Francisco: Jossey-Bass.
- Bogdan, R. C. and Biklen, S. K.  
1982 Qualitative Research for Education: An Introduction to Theory and Methods. Boston: Allyn and Bacon.
- Brubacher, J. S.  
1982 On the Philosophy of Higher Education. San Francisco: Jossey-Bass.

- Budimulia, S. T., Suparman, A. and Romiszowsky, A. J.  
1992 Banking Education in Indonesia. (Rumble and Oliveira, 1992:93-101).
- Calvert, J.  
1992 Deakin University. (Mugridge, 1992:19-32).
- Chick, J.  
1992 The New England Model in Theory and Practice. (Mugridge, 1992:33-48).
- Clark, B. R. (Ed.)  
1982 Perspectives on Higher Education. Berkeley: University of California Press.
- Clark, B. R.  
1983 The Higher Education System: Academic Organizations in Cross-National Perspective. Berkeley, California: University of California Press.
- Cohen, L. and Manion, L.  
1987 Research Methods in Education, 2nd Ed. London: Croom Helm.
- Croft, M.  
1992 Single or Dual Mode: Challenges and Choices for the Future of Education. (Mugridge, 1992:49-62).
- Cummings, W. K. and Kasenda, S.  
1989 The Origin of Modern Indonesian Higher Education. (Altbach and Selvaratnam, 1989:143-166).
- Currie, G. A. and Kedgley, E. G.  
1959 The University in New Zealand Facts and Figures. Christchurch, New Zealand: Whitcombe and Tombs.
- Daniel, J. S. and Snowden, B. L.  
1981 The Management of Small Open Universities. (Neil, 1981:217-226).
- Darkenwald, G. G.  
1980 Field Research and Grounded Theory. (Long et al., 1980:63-77).
- Dawkins, J.  
1987 Higher Education: a Policy Discussion Paper (The Green Paper). Canberra: Australian Government Publishing Service.
- Dawkins, J.  
1988 Higher Education: a Policy Statement (The White Paper). Canberra: Australian Government Publishing Service.
- Dawkins, J.  
1988a Higher Education: An Overview of the Policy Discussion Paper. Canberra: Ministry for Employment, Education and Training.

- Deighton, L. C. (Ed.)  
1971 The Encyclopedia of Education. New York: Macmillan.
- Drucker, P. F.  
1992 Managing for the Future: The 1990s and Beyond. Oxford, England: Butterworth-Heinemann.
- Drummond, D. H.  
1959 A University is Born. Sydney: Angus and Robertson.
- Evans, T. and Nation, D. (Eds.)  
1989 Critical Reflections on Distance Education. London: The Falmer Press.
- Fetterman, D. M. (Ed.)  
1987 Ethnography in Educational Evaluation. London: Sage Publications.
- Flexner, A.  
1930 Universities: American, English, German. New York: Oxford University Press.
- Forum on External Studies  
1972 Proceedings of a Forum on External Studies. Armidale, NSW: UNE.
- Franklin, M. A. (Ed.)  
1988 The New England Experience: Inside Stories of UNE 1983-1988. Armidale, NSW: UNE Alumni Association.
- Gardner, W. J.  
1979 Colonial Cap and Gown: Studies in the Mid-Victorian Universities of Australasia. Christchurch, New Zealand: University of Canterbury.
- Glaser, B. G. and Strauss, A. L.  
1968 The Discovery of Grounded Theory: Strategies for Qualitative Research. London: Weidenfeld and Nicolson.
- Glatte, R. and Wedell, E. G.  
1971 Study by Correspondence. London: Longman.
- Guba, E. G. and Lincoln, Y. S.  
1982 Effective Evaluation: Improving the Usefulness of Evaluation Results Through Responsive and Naturalistic Approaches. San Francisco: Jossey-Bass.
- Gunn, D. E. and McMeachan, J. P.  
1987 Distance Education in New Zealand. (ADB, 1987:587-645.
- Hamilton, D. et al. (Eds.)  
1977 Beyond the Numbers Game: A Reader in Educational Evaluation. London: The Falmer Press.
- Hammersley, M. (Ed.)  
1986 Controversies in Classroom Research. Milton Keynes: Open University Press.

- Hammersley, M. and Atkinson, P.  
1983 Ethnography: Principles and Practice. London: Tavistock.
- Harman, G. S.  
1980 Introduction. (Harman et al., 1980:1-24).
- Harman, G. S. et al. (Eds.)  
1980 Academia Becalmed: Australian Tertiary Education in the Aftermath of Expansion. Canberra: Australian National University Press.
- Harman, G. and Meek, V. L. (Eds.)  
1988 Australian Higher Reconstructed?. Armidale, NSW: DAHES (Department of Administrative and Higher Education Studies), UNE.
- Harman, G. and Meek, V. L.  
1988a Concluding Remarks. (Harman and Meek, 1988:163-172).
- Harman, G. S. and Smith, C. S. (Eds.)  
1972 Australian Higher Education: Problems of a Developing System. Sidney: Angus and Robertson.
- Harris, D.  
1987 Openness and Closure in Distance Education. London: The Falmer Press.
- Holborow, L.  
1988 Extramural Opportunities for Higher Education in New Zealand. (Toombs and Harman, 1988:118-126).
- Holmberg, B.  
1967 Correspondence Education: A Survey of Applications, Methods and Problems. Malmo: Hermonds NKI.
- Holmberg, B.  
1977 Distance Education: A Survey and Bibliography. London: Kogan Page.
- Holmberg, B.  
1981 Status and Trends of Distance Education. London: Kogan Page.
- Holmberg, B.  
1981a A typology of University Distance Education. (Percival and Ellington, 1981:34-40).
- Holmberg, B.  
1983 Guided Didactic Conversation in Distance Education. (Sewart, Keegan and Holmberg, 1983:114-122).
- Holmberg, B.  
1983a The Concept of Distance Education: Introduction. (Sewart, Keegan and Holmberg, 1983:1-5).



- Holmberg, B.  
1985 Status and Trends of Distance Education. Lund, Sweden: Lector Publishing.
- Holmberg, B.  
1986 Growth and Structure of Distance Education. London: Croom Helm.
- Holmberg, B.  
1989 Theory and Practice of Distance Education. London: Routledge.
- Howe, A. and Budgett, R. E. B. (Eds.)  
1981 International Yearbook of Educational and Instructional Technology 1980/1981. London: Kogan Page.
- Isaac, S. and Michael, W. B.  
1981 Handbook in Research and Evaluation. San Diego: Edits Publishers.
- Jaspers, K.  
1965 The Idea of the University. London: Peter Owen.
- Junge, G.  
1973 The Universities of Indonesia: History and Structure. Bremen: The Bremen Economic Research Society.
- Kaye, A.  
1981 Origins and Structures. (Kaye and Rumble, 1981:15-31)
- Kaye, A. and Rumble, G. (Eds.)  
1981 Distance Teaching for Higher and Adult Education. London: Croom Helm.
- Kaye, A. and Rumble, G.  
1981a Some Concluding Comments. (Kaye and Rumble, 1981:273-292).
- Keegan, D.  
1983 Theories of Distance Education: Introduction. (Sewart, Keegan and Holmberg, 1983:63-67).
- Keegan, D.  
1983a On Defining Distance Education. (Sewart, Keegan and Holmberg, 1983:6-33).
- Keegan, D.  
1986 The Foundations of Distance Education. London: Croom Helm.
- Keegan, D.  
1990 The Foundations of Distance Education (2nd Ed.). London: Routledge.
- Keegan, D. and Rumble, G.  
1982 Distance Teaching at University Level. (Rumble and Harry, 1982:15-31).

- Keeves, J. P. (Ed.)  
1988 Educational Research, Methodology, and Measurement: An International Handbook. Oxford: Pergamon Press.
- Kelly, M.  
1987 Barriers to Convergence in Australian Higher Education. (Smith and Kelly, 1987:175-200).
- Kelly, M. and Smith, P.  
1987 Introduction. (Smith and Kelly, 1987:1-11).
- Kerr, C.  
1977 The Uses of the University: With a Postscript -- 1972. Cambridge: Harvard University Press.
- Kerr, R.  
1988 Tertiary Education Reform in New Zealand: A Business Sector Perspective. (Toombs and Harman, 1988:151-164).
- Kinder, R.  
1987 An Action Research Approach to a Study of the Development, Evaluation and Implementation Processes in a Distance Education Project for Indonesian Bankers. M.Ed. (Honours) Thesis, The University of New England.
- Konrad, A. G. and Small, J. M.  
1986 Consortia in Canadian Distance Education. (Mugridge and Kaufman, 1986:111-120).
- Koul, B. N. and Jenkins, J. (Eds.)  
1990 Distance Education: A Spectrum of Case Studies. London: Kogan Page.
- Langer, R. H. M.  
1989 The Universities of New Zealand. (ACU, 1989:2304-2314).
- Lockwood, G.  
1985 Administration. (Lockwood and Davies, 1985:311-337).
- Lockwood, G. and Davies, S. (Eds.)  
1985 Universities: The Management Challenge. Windsor: SRHE and NFER-NELSON.
- Long, H. B. et al. (Eds.)  
1980 Changing Approaches to Studying Adult Education. San Francisco: Jossey-Bass.
- Macdonald, B. and Walker, R.  
1977 Case-study and the Social Philosophy of Educational Research. (Hamilton et al., 1977:181-189).
- Macmillan, D. S.  
1968 Australian Universities: A Descriptive Sketch. Sydney: Sidney University Press.

- McIlroy, A.  
1988 A Cross-perceptual Study of Massey University's Extramural Regional Tutor Scheme to Investigate: (1) the Role of Regional Tutors, (2) the Recruitment, Training, Support and Payment of Regional Tutors. MBA Thesis, Massey University.
- Meek, V. L.  
1982 The University of Papua New Guinea: A Case Study in the Sociology of Higher Education. St Lucia, QLD: University of Queensland Press.
- Meek, V. L.  
1984 Brown Coal or Plato? A Study of the Gippsland Institute of Advanced Education. Hawthorn, VIC: Australian Council for Educational Research.
- Meek, V. L. and Goedegebuure, L. C. J.  
1989 Higher Education: A Report. Armidale, NSW: DAHES, UNE.
- Merriam, S. B.  
1990 Case Study Research in Education: A Qualitative Approach. San Francisco: Jossey-Bass
- Miarso, Y. (Ed.)  
1989 Laporan Seminar Nasional Pendidikan Jarak Jauh (National Seminar Report on Distance Education). Jakarta: Department of Education and Culture.
- Miarso, Y.  
1989a Perkembangan Sistem Pendidikan Jarak Jauh (The Development of Distance-Education System). (Miarso, 1989:1-9).
- Miller, E. E. and Mosley, M. L. (Eds.)  
1985 Educational Media and Technology Yearbook 1985. Littleton, Colorado: Libraries Unlimited.
- Millet, J. D.  
1962 The Academic Community: An Essay on Organization. New York: McGraw-Hill.
- Moore, M. G.  
1983 On a Theory of Independent Study. (Sewart, Keegan and Holmberg, 1983:68-94).
- Morgan, A.  
1991 Case-study Research in Distance Education. Geelong, Victoria: Deakin University.
- Motik, I. S. D.  
1989 A Case Study of the Tutorial Program at the Jakarta Regional Office of the Universitas Terbuka (the Indonesian Open University). Ed.D. Dissertation, Syracuse University.

- Mugridge, I. (Ed.)  
 1992 Perspectives on Distance Education: Distance Education in Single and Dual Mode Universities. Vancouver: The Commonwealth of Learning.
- Mugridge, I.  
 1992a Introduction. (Mugridge, 1992:1-2).
- Mugridge, I. and Kaufman, D. (Eds.)  
 1986 Distance Education in Canada. London: Croom Helm.
- Mugridge, I. and Maraj, J. A.  
 1992 Conclusion: Distance Education in Single and Dual Mode Institutions. (Mugridge, 1992:153-158)
- Muryono, S.  
 1989 The Indonesian Open Learning University: Present Development and Future Prospects. (AAOU, 1989:31-36).
- Naisbitt, J.  
 1982 Megatrends: Ten New Directions Transforming Our Lives. New York: Warner Books.
- Neil, M. W. (Ed.)  
 1981 Education of Adults at a Distance. London: Kogan Page and The Open University Press.
- Nelson, A. J. A.  
 1985 Madgwick, Robert Bowden (1905-1979). (Thomas and Elsey, 1985:379-383).
- Newman, J. H. (Cardinal)  
 1947 The Idea of a University. New York: Longmans.
- Newman, Cardinal J. H.  
 1953 The Idea of a Liberal Education. London: George E. Harrap.
- Newman, Cardinal J. H.  
 1956 On the Scope and Nature of University Education. London: J. M. Dent and Sons.
- Niemeyer, D.  
 1985 Postsecondary Consortia and Distance Learning. (Miller and Mosley, 1985:54-57).
- Northcott, P.  
 1984 The Tyranny of Distance and Proximity. (Smith, 1984:39-50).
- OECD  
 1974 Policies for Higher Education. Paris: OECD (Organisation for Economic Cooperation and Development).
- Ortega y Gasset, J.  
 1944 Mission of the University. Princeton, NJ: Princeton University Press.

- Ortmeier, A.  
1982 External Studies in Australia. Armidale, NSW: The Institute for Higher Education, UNE.
- Owens, J. M. R.  
1985 Campus Beyond the Walls: The First 25 Years of Massey University's Extramural Programme. Palmerston North: The Dunmore Press.
- Patton, M. Q.  
1980 Qualitative Evaluation Methods. Beverly Hills: Sage Publications.
- Patton, M. Q.  
1987 How to Use Qualitative Methods in Evaluation. Newbury Park, California: Sage Publications.
- Paul, R. H.  
1990 Open Learning and Open Management: Leadership and Integrity in Distance Education. London: Kogan Page.
- Percival, F. and Ellington, H. (Eds.)  
1981 Aspects of Educational Technology Volume XV: Distance Learning and Evaluation. London: Kogan Page.
- Perkin, H.  
1982 The Historical Perspective. (Clark, 1982:17-55).
- Perkins, J. A. (Ed.)  
1973 The University as an Organization. New York: McGraw Hill.
- Perkins, J. A.  
1973a Organization and Functions of the University. (Perkins, 1973:3-14).
- Perraton, H.  
1983 A Theory for Distance Education. (Sewart, Keegan and Holmberg, 1983:34-45).
- Perry, W.  
1976 Open University: A Personal Account by the First Vice-Chancellor. Milton Keynes: The Open University Press.
- Perry, W. and Rumble, G.  
1987 A Short Guide to Distance Education. Cambridge: International Extension College.
- Peters, O.  
1983 Distance Teaching and Industrial Production: A Comparative Interpretation Outline. (Sewart, Keegan and Holmberg, 1983:95-113).
- Prebble, T.  
1991 Quality Assurance under Conditions of Devolved Responsibility. (Atkinson, McBeath and Meacham, 1991:418-423).

- Reddy, G. R. (Ed.)  
1988 Open Universities: the Ivory Towers Thrown Open. New Delhi: Sterling Publishers.
- Rumble, G.  
1986 Activity Costing in Mixed-Mode Institutions. Geelong, VIC: Deakin University.
- Rumble, G.  
1986a The Planning and Management of Distance Education. New York: St. Martin's Press.
- Rumble, G.  
1988 Economics in Distance Education: Time for a Change of Direction? (Sewart and Daniel, 1988:63-69).
- Rumble, G. and Harry, K. (Eds.)  
1982 The Distance Teaching Universities. London: Croom Helm.
- Rumble, G. and Oliveira, J. (Eds.)  
1992 Vocational Education at a Distance: International Perspectives. London: Kogan Page.
- Setijadi  
1987 Distance Education in Indonesia. (ADB:99-157).
- Sewart, D. and Daniel, J. (Eds.)  
1988 Developing Distance Education: Papers Submitted to the 14th World Conference in Oslo 9-16 August 1988. Oslo: International Council for Distance Education.
- Sewart, D., Keegan, D. and Holmberg, B. (Eds.)  
1983 Distance Education International Perspectives. London: Croom Helm.
- Sewart, D., Keegan, D. and Holmberg, B. (Eds.)  
1988 Distance Education: International Perspectives. London: Routledge.
- Sheath, H. C.  
1965 External Studies: the First Ten Years 1955-1964. Armidale, NSW: The University of New England.
- Smith, K. C.  
1979 External Studies at New England -- a Silver Jubilee Review 1955-1979. Armidale: The University of New England.
- Smith, K. (Ed.)  
1984 Diversity down under in Distance Education. Toowoomba, Queensland: Darling Downs Institute Press.
- Smith, K. C.  
1988 External Studies at New England -- A Silver Jubilee Review, 1955-1979. (Sewart, Keegan and Holmberg, 1983:195-210).



- Smith, P. and Kelly, M. (Eds.)  
 1987 Distance Education and the Mainstream: Convergence in Education. London: Croom Helm.
- Stenhouse, L.  
 1988 Case Study Methods. (Keeves, 1988:49-53).
- Store, R. and Chick, J.  
 1984 Reaching out in Queensland: A Decentralised Approach. (Smith, 1984:57-62).
- Strauss, A. and Corbin, J.  
 1990 Basics of Qualitative Research: Grounded Theory Procedures and Techniques. Newbury Park, CA: Sage Publications.
- Stroup, H.  
 1966 Bureaucracy in Higher Education. New York: Free Press.
- Suparman, A.  
 1988 Management and Development System of Universitas Terbuka. (Reddy, 1988:124-144).
- Teather, D. C. B.  
 1981 Learning from a Distance: A Variety of Models. (Howe and Budgett, 1981:53-71).
- Teather, D. C. B. (Ed.)  
 1982 Towards the Community University. London: Kogan Page.
- Teather, D. C. B.  
 1982a Contemporary Universities: Characteristics and Challenges. (Teather, 1982:15-32).
- Teichler, U.  
 1988 Changing Patterns of the Higher Education System: The Experience of Three Decades. London: Jessica Kingsley.
- Thomas, J. E. and Elsey, B. (Eds.)  
 1985 International Biography of Adult Education. Nottingham: Department of Adult Education, University of Nottingham.
- Thomas, R. M.  
 1973 A Chronicle of Indonesian Higher Education: The First Half Century 1920-1970. Singapore: Chopmen Enterprises.
- Toombs, W. and Harman, G. (Eds.)  
 1988 Higher Education and Social Goals in Australia and New Zealand. University Park, PA and Armidale, NSW: DAHES, UNE and The Pennsylvania State University.
- Toombs, W. and Harman, G.  
 1988a Introduction. (Toombs and Harman, 1988:1-16).

- Trow, M.  
1974 Problems in Transition from Elite to Mass Higher Education. (OECD, 1974:51-104).
- Van Dalen, D. B.  
1966 Understanding Educational Research. New York: McGraw-Hill.
- Verma, G. K. and Beard, R. M.  
1981 What is Educational Research? Aldershot, Hants: Gower.
- Wagner, G. A.  
1988 Higher Education and Social Goals in New Zealand: Views of the Educational Community at Large. (Toombs and Harman, 1988:193-204).
- Walker, R.  
1986 The Conduct of Educational Case Studies: Ethics, Theory and Procedures. (Hammersley, 1986:187-219).
- Ward, J.  
1988 Universities of Australia (Introduction). St. Lucia: University of Queensland Press.
- Waters, T. N. M.  
1988 Higher Education in New Zealand: The Promotion of Technology and Science. (Toombs and Harman, 1988:85-94).
- Wedemeyer, C. A.  
1971 Independent Study: Overview. (Deighton, 1971).
- Wedemeyer, C. A.  
1981 Learning at the Backdoor: Reflections on Non Traditional Learning in the Lifespan. Madison: University of Wisconsin Press.
- White, V.  
1987 Distance Education in Australia. (ADB, 1987:372-400).
- Yin, R. K.  
1989 Case Study Research: Design and Methods (Revised Ed.). Newbury Park, CA: Sage Publications.

## B. JOURNALS AND OTHER ARTICLES

- Amin, Z. I.  
1989 Pola Proses Belajar Mengajar Melalui Sistem Tutorial di Universitas Terbuka (Patterns of Teaching-Learning Processes through Tutorial System in the Universitas Terbuka). Bulletin Universitas Terbuka, 4:55-61.
- Baath, J.  
1982 Distance Students' Learning -- Empirical Findings and Theoretical Deliberations. Distance Education, 3(1):6-27.
- Bates, A. W.  
1991 Third Generation Distance Education: The Challenge of New Technology. Research in Distance Education, 3(2):10-15.
- Blowers, A.  
1979 Carry on Course Teams. Teaching at a Distance, 16:54-57.
- Boston, J., Haig, B. and Lauder, H.  
1988 The Third Wave: a Critique of the New Zealand Treasury's Report on Education. Part II. New Zealand Journal of Educational Studies, 23(2):115-144.
- Broadley, K and Shaw, B.  
1982 Tutoring by Telephone: a Trial in Teaching Extramural Students in 36.102 Human Development. Palmerston North, New Zealand: Massey University, Department of Education.
- Brubacher, J. S.  
1970 The Theory of Higher Education. Journal of Higher Education, 41:98-115.
- Bynner, J.  
1985 Collaborative Schemes and the Ethos of Distance Education: A Study of Australian and New Zealand Universities. Higher Education, 14:513-533.
- Campion, M and Kelly, M.  
1988 Integration of External Studies and Campus-based Education in Australian Higher Education: The Myth and the Promise. Distance Education, 9(2):171-201.
- Clyde, A. et al.  
1983 How Students Use Distance Teaching Materials: An Institutional Case Study. Distance Education, 4(1):4-26.
- Coldeway, D.  
1988 Methodological Issues in Distance Educational Research. The American Journal of Distance Education, 2(3):45-54.

- Corbin, J. and Strauss, A.  
1990 Grounded Theory Research: Procedures, Canons, and Evaluative Criteria. Qualitative Sociology, 13(1):3-21.
- Cropley, A. J. and Kahl, T. N.  
1983 Distance Education and Distance Learning: Some Psychological Considerations. Distance Education, 4(1):27-39.
- Costello, N.  
1979 The Curse of the Course Team: A Comment. Teaching at a Distance, 16:53-54.
- Daniel, J. and Marquis, C.  
1979 Interaction and Independence: Getting the Mixture Right. Teaching at a Distance, 14:29-44.
- Dodds, A. E. et al.  
1984 University Students' Perceptions of Influences on External Study. Distance Education, 5(2):174-185.
- Donosepoetro, M.  
1983 Emergence of New Structures of Governance and Administration in Tertiary Education in Indonesia. Journal of Tertiary Educational Administration, 5(1):79-83.
- Drake, M.  
1979 The Curse of the Course Team. Teaching at a Distance, 16:50-53.
- Dunbar, R.  
1991 Adapting Distance Education for Indonesians: Problems with Learner Heteronomy and a Strong Oral Tradition. Distance Education, 12(2):163-174.
- Ehmann, C.  
1981 Fernstudium/Fernunterricht. Reflections on Otto Peters' Research. Distance Education, 2(2):228-233.
- Fitzpatrick, J.  
1983 The Australian Schools of the Air: the Conundrum of Who Teaches. Distance Education, 3(2):183-197.
- Garrison, D. R. and Shale, D.  
1987 Mapping the Boundaries of Distance Education: Problems in Defining the Field. The American Journal of Distance Education, 1(1):6-13.
- Granger, D.  
1990 Open Universities: Closing the Distances to Learning. Change, 22(4):44-50.
- Hanson, A.  
1984 Can a True University Education be Achieved at a Distance? ICDE Bulletin, 4:33-36.

- Harley, F.  
1985 An Alternative Organizational Model for Early Childhood Distance Education Programs. Distance Education, 6(2):158-168.
- Harman, G. S.  
1988 Tertiary Education and Public Policy: Australia's Response to a Changing Environment. Higher Education, 17:251-266.
- Harman, G. S.  
1991 Institutional Amalgamations and Abolition of the Binary System in Australia under John Dawkins. Higher Education Quarterly, 45(2):176-198.
- Harris, D.  
1988 The Micro-politics of openness. Open Learning, 3(2):13-16.
- Herrmann, A., Cameron, J. and Davidson, G.  
1991 On-campus Requirements in Remote Area Australian Distance Education. Open Learning, 6(2):21-27.
- Hiola, Y. and Moss, D.  
1989 Face-to-face Tutorial Provision in the Universitas Terbuka (the Open University of Indonesia). Distance Education, 10(2):258-270.
- Hiola, Y. and Moss, D.  
1990 Some Characteristics of Distance Learners at the Universitas Terbuka (Open University) of Indonesia. Distance Education, 11(1):116-124.
- Holmberg, B.  
1986a A Discipline of Distance Education. Journal of Distance Education, 1(1):25-40.
- Holmberg, B.  
1989a Further to the Question of whether Distance Education is a Discipline. Journal of Distance Education, 4(1):62-64.
- Hosie, P.  
1988 Realistic Uses of AUSSAT for Distance Education in Western Australian Primary and Secondary Schools. Distance Education, 9(1):27-47.
- Hughes, D. and Lauder, H.  
1991 Human Capital Theory and the Wastage of Talent in New Zealand. New Zealand Journal of Educational Studies, 26(1):5-20.
- Hunt, N.  
1981 Extramural Studies at Massey University: Their Purpose and Function. Continuing Education in New Zealand, 13(1):11-19.

- Hurley, E. M. and Anderson, W. J.  
1991 Farm Management Teaching at a Distance. Paper presented to the 8th International Farm Management Congress, Palmerston North, New Zealand, February 1991.
- Iswanto, Y.  
1991 Mengenal Beberapa Kasus Nilai Ujian (Identifying Some Cases of Examination Results). Suara Terbuka, 34:15-17.
- Jevons, F.  
1986 In Retrospect. O. Peters, Die didaktische Struktur des Fernunterrichts. Untersuchungen zu einer industrialisierten Form des Lehrens und Lernens. Distance Education, 7(1):164-168.
- Jevons, F.  
1986a Dual Mode Institutions -- The Way Forward. Open Campus, 12:4-9.
- Johnson, R.  
1991 Recent Developments in Distance Higher Education in Australia. ICDE Bulletin, 26:11-22.
- Kaye, T. and Rumble, G.  
1991 Open Universities: A Comparative Approach. Prospects, XXI(2):214-226.
- Keegan, D.  
1980 On Defining Distance Education. Distance Education, 1(1):13-36.
- Kelly, M.  
1987 Course Teams and Instructional Design in Australian Distance Education: A Reply to Shaw and Taylor. Distance Education, 8(1):106-120.
- Lauder, H.  
1987 The New Right and Educational Policy in New Zealand. New Zealand Journal of Educational Studies, 22(1):3-23.
- Lauder, H., Middleton, S., Boston, J. and Wylie, C.  
1988 The Third Wave: a Critique of the New Zealand Treasury's Report on Education. New Zealand Journal of Educational Studies, 23(1):15-34.
- Ljosa, E.  
1984 Small-scale and Large-scale Organisational Models of Distance Education: a Discussion. Distance Education, 5(1):106-109.
- Long, N. R. and Povey, T.  
1982 Audiotapes in Distance Teaching: A New Zealand Experience. Teaching at a Distance, 21:60-65.
- McCleary, L. E.  
1984 Open Higher Education: The Management Challenge. ED 254 135.



- McIlroy, A.  
1988a Extramural Regional Support: Massey University "Outside the Walls". Paper presented to ANZSSA, Auckland, New Zealand.
- McNeil, D. R. and Wall, M. N.  
1983 The University of Mid-America: an Analytic Perspective. ICDE Bulletin, 2:34-41.
- Meek, L.  
1991 The Transformation of Australian Higher Education from Binary to Unitary System. Higher Education, 21(4):461-494.
- Meek, L.  
1992 The Management of Multicampus Institutions: Some Conceptual Issues in Historical and Social Context. Journal of Tertiary Education Administration, 14(1):11-28.
- Minnis, J. R.  
1985 Ethnography, Case Study, Grounded Theory, and Distance Education Research. Distance Education, 6(2):189-198.
- Moore, M. G.  
1973 Toward a Theory of Independent Learning and Teaching. The Journal of Higher Education, XLIV(9):661-679.
- Moore, M. G.  
1990 Recent Contributions to the Theory of Distance Education. Open Learning, 5(3):10-15
- Moore, M. G.  
1991 Distance Education Theory. The American Journal of Distance Education, 5(3):1-6.
- Morgan, A.  
1984 A Report on Qualitative Methodologies in Research in Distance Education. Distance Education, 5(2):252-267.
- Murgatroyd, S. and Woudstra, A.  
1989 Issues in the Management of Distance Education. The American Journal of Distance Education, 3(1):4-19.
- Muta, H.  
1985 The Economics of the University of the Air of Japan. Higher Education, 14:269-296.
- Muta, H. and Sakamoto, T.  
1989 The Economics of the University of the Air of Japan Revisited. Higher Education, 18:585-611.
- Nakamura, M. and Nishino, S.  
1993 Islamic Higher Education in Indonesia. Higher Education Policy, 6(2):51-54.

- Nicodemus, R.  
1984 Lessons from a Course Team. Teaching at a Distance, 25:33-39.
- Patterson, G.  
1991 University 'Reform' in New Zealand 1984-1990: Policies and Outcomes. Access, 10(1):8-20.
- Pearse, R.  
1985 The Regulation of Higher Education in Indonesia Under the New Order: University Staff and Students. Journal of Tertiary Educational Administration, 7(2):189-200.
- Pelto, J. N.  
1991 Technology and Distance Education: Friend or Foe? Research in Distance Education, 3(2):2-9.
- Perraton, H.  
1987 Theories, Generalization, and Practice in Distance Education. Open Learning, 2(3):3-12.
- Peters, O.  
1989 The Iceberg has not Melted: Further Reflections on the Concept of Industrialisation and Distance Teaching. Open Learning, 4(3):3-8.
- Powles, M. and Anwyl, J.  
1987 Clienteles for Distance Education in Australia. Distance Education, 8(3):208-226.
- Prebble, T.  
1989 An Analysis of Unit Costs in Extramural Studies. Paper presented to DEANZ Conference.
- Prebble, T.  
1991a Distance Education in New Zealand (Paper prepared for UNESCO). Palmerston North: Massey University.
- Psacharopoulos, G.  
1991 Higher Education in Developing Countries: The Scenario of the Future. Higher Education, 21(1):3-9.
- Richmond, W. H.  
1991 The Ending of an Era: External Studies in the University of Queensland. ASPESA Papers, 11:5-16.
- Rumble, G.  
1987 Why Distance Education Can Be Cheaper than Conventional Education. Distance Education, 8(1):72-94.
- Rumble, G.  
1988a Animadversions upon the Concept of Distance Education as a Discipline. Journal of Distance Education, 3(1):39-56.

- Rumble, G.  
1989 The Role of Distance Education in National and International Development: An Overview. Distance Education, 10(1):83-107.
- Rumble, G.  
1989a On Defining Distance Education. The American Journal of Distance Education, 3(2):8-21.
- Scriven, B.  
1991 Ten Years of 'Distance Education.' Distance Education, 12(1):137-153.
- Setijadi  
1988 Indonesia: Universitas Terbuka. Prospects 18(2):189-197.
- Sewart, D.  
1986 Single Mode Versus Dual Mode: A Fair Question? Open Campus, 12:10-15.
- Shale, D.  
1987 Innovation in International Higher Education: The Development of Open Universities. Journal of Distance Education, 2(1):7-26.
- Shaw, B. and Taylor, J.  
1984 Instructional Design: Distance Education and Academic Tradition. Distance Education, 5(2):277-285.
- Sheath, H. C.  
1957 The External Studies Gazette Vol. I No. 1.
- Siaciwena, R. M. C.  
1984 Introducing Radio Broadcasts to Support Correspondence Courses at the University of Zambia. ICDE Bulletin, 4:17-21.
- Snook, I.  
1989 Educational Reform in New Zealand: What is Going on? Access, 8(2):9-18.
- Snook, I.  
1991 Policy Change in Higher Education: the New Zealand Experience. Higher Education, 21(4):621-634.
- Snowden, B. L. and Daniel, J. S.  
1980 The Economics and Management of Small Post-Secondary Distance Education Systems. Distance Education, 1(1):68-91.
- Soeprapto, B.  
1992 Dari Meja Rektor (From the Desk of the Rektor). Suara Terbuka, 46:5-6.

- Soliman, I. K.  
1988 Video Production for Distance Education: A Collaborative Enterprise. Distance Education, 9(2):298-311.
- ST (Suara Terbuka)  
1992 Otonomisasi UPBJJ (Autonomy of the UT Regional Centre). Suara Terbuka, 35/36:16.
- Symon, A.  
1993 Indonesian Five-Year Plan to Open Educational Opportunities. Campus Higher Education News, 11-17 February 1993.
- Tight, M.  
1985 Do We Really Need Course Teams? Teaching at a Distance, 26:48-50.
- Tight, M.  
1988 Distance Education: Discipline and Service. Journal of Distance Education, 3(1):81-84.
- Trow, M.  
1976 "Elite Higher Education": An Endangered Species? Minerva, XIV(3):355-376.
- Van Maanen, J.  
1979 Reclaiming Qualitative Methods for Organizational Research: A Preface. Administrative Science Quarterly, 24(4):520-526.
- Wagner, L.  
1973 The Economics of the Open University. Higher Education, 1:150-183.
- Wagner, L.  
1977 The Economics of the Open University Revisited. Higher Education, 6:359-381.
- White, M.  
1982 Distance Education in Australian Higher Education -- a History. Distance Education, 3(2):255-278.
- Williams, M. and Williams, J.  
1987 A Student Operated Support Network for Distance Learners. ICDE Bulletin, 13:51-64.
- Yin, R. K.  
1981 The Case Study Crisis: Some Answers. Administrative Science Quarterly, 26(1):58-65.

## C. REPORTS, MINISTERIAL AND INSTITUTIONAL PUBLICATIONS

AVCC (Australian Vice-Chancellor Committee)

- 1993 National Conference on Open and Distance Education (NCODE). AVCC Meeting No. 3/93.

Chick, J.

- 1991 Dorrigo Workshop on Developments in Distance Education. Unpublished Report, UNE.

Chick, J.

- 1991a Relocation of Functional Areas Implications for the Distance Education Program. Unpublished Report, UNE.

Chick, J.

- 1992a Proposals for Restructuring the Distance Education Centre as a Centre for Distance Education and Open Learning. Unpublished Report, UNE.

DGHE

- 1989 Rangkuman Hasil Rapat Kerja Rektor Universitas, Institut, Direktur Akademi Negeri dan Koordinator Kopertis Seluruh Indonesia, 14-16 Januari 1989 (Summary of Meetings of the Indonesian Rectors and Directors of State Higher-Education Institutions, and Coordinators of Private Higher Education, 14-16 January 1989). Jakarta: Departemen Pendidikan dan Kebudayaan.

DGHE

- 1990 Laporan Tahunan Ditjen Dikti Tahun 1989/1990 (Annual Report of the Directorate General of Higher Education 1989/1990). Jakarta: Departemen Pendidikan dan Kebudayaan.

Djalil, A. et al.

- 1993 The Financing System of the Universitas Terbuka. A research report prepared for ICDE. Jakarta: Research and Community Service Centre, Universitas Terbuka.

Fraser Report

- 1986 Report of the Working Party on Extramural Studies. Report submitted by a Working Party chaired by Professor G. S. Fraser, Massey University.

Guiton, P.

- 1992 Single Mode and Dual Mode Structures for Distance Education. Unpublished Report.

Harman, E. J.

- 1991 The Cost of Distance Education at Australian Distance Education Centres. A report prepared for DEET and NDEC.

- Hudson, H. (Hudson Report)  
 1986 Review of Efficiency and Effectiveness in Higher Education: Report of Committee of Enquiry. Canberra: Australian Government Publishing Service
- Hughes Parry Report  
 1960 Report of the Committee on New Zealand Universities (Hughes Parry Report) December 1959. Wellington, New Zealand: Government Printer.
- Johnson, R. (Johnson Report)  
 1983 The Provision of External Studies in Australian Higher Education. Canberra: CTEC.
- Johnson, R.  
 1990 Open Learning: Policy and Practice, Commissioned Report, No. 4, Canberra: National Board of Employment, Education and Training (NBEET).
- Karmel, P. H. (Karmel Report)  
 1975 Open Tertiary Education in Australia: Final Report of the Committee on Open University to the Universities Commission. Canberra: Australian Government Publishing Service.
- MOEC  
 1984 Information Booklet on Universitas Terbuka. Jakarta: MOEC.
- MOEC (MOEC Report)  
 1986 Improving the Efficiency of Educational Systems: Indonesian Education and Human Resources Sector Review. Jakarta: USAID and MOEC.
- MOEC  
 1986a Chapter 9 Higher Education. (MOEC, 1986:1-84).
- MU  
 1990 Massey University Interim Corporate Plan 1990 - 1992.
- MU  
 1990a Massey University Calendar 1991.
- MU  
 1990b Extramural Handbook 1991.
- MU  
 1991 Massey University Charter 1991 to 1995.
- MU  
 1991a Extramural Handbook 1992.
- MU  
 1993 Advocacy Column. EXMSS News, August, 1993:9.



## NBEET Report

- 1992 Changing Patterns of Teaching and Learning: The Use and Potential of Distance Education Materials and Methods Australian Higher Education, Commissioned Report No. 19. Canberra: Australian Government Publishing Service and National Board of Employment, Education and Training (NBEET).

## New Zealand Ministry of Education

- 1990 Education Statistics of New Zealand 1990. Wellington: Research and Statistics Division, Ministry of Education.

## Pech, R. M.

- 1993 Extramural Studies: Quality Education Across the Miles. Palmerston North, New Zealand: Massey University Centre for University Extramural Studies.

## Prebble, T.

- 1990 The Extramural Plan. Draft submitted to the BES, Massey University.

## Prebble, T.

- 1991b Semesters: Implications for Extramural Studies. Report to BES, Massey University.

## Sandbrook, P. A.

- 1989 Enrolment Report to the BES, July 1989. Massey University BES 89/35.

## Setijadi

- 1992 Memorandum Akhir Jabatan Rektor Universitas Terbuka Periode 1984-1988 / 1988-1992 (End-of-Term Memorandum of the Rektor of the Universitas Terbuka, 1984-1988 / 1988-1992). Jakarta: Universitas Terbuka.

## Taylor, J. C.

- 1993 University of Southern Queensland as a Distance Education Centre. Toowoomba, Queensland: University of Southern Queensland.

## UNESCO-ICDE Report (Smith, K. and Curran, C.)

- 1990 Developments in Distance Education in Asia: an Analysis of Five Case Studies. Paris: UNESCO-ICDE.

## UNE

- 1956 The University of New England Calendar 1956.

## UNE

- 1957 External Studies Gazette, Vol. I No. 1.

## UNE

- 1982 Teaching Externally.

## UNE

- 1985 The University of New England: A Profile.

- UNE  
1987 Report of the Vice-Chancellor's Committee to Review the Department of External Studies, Chaired by Professor J. S. Nalson.
- UNE  
1988 Designation as a Distance Education Centre: A Submission to the Department of Education, Employment and Training.
- UNE  
1989 Amalgamation Implementation Committee Final Report.
- UNE  
1990 A Memorandum from the Vice-Chancellor, 29 March 1990.
- UNE  
1990a UNE Leads World Technology. UNE Gazette, 11:3.
- UNE  
1991 Enrolments Top 19,000 mark. UNE Gazette, 15:1
- UNE  
1991a The University of New England - Armidale Handbook 1992.
- UNE  
1991b The University of New England Board of Governors Business Paper, 4 February 1991.
- UNE  
1993 Condensed Results of External Student Survey. UNE Distance Education and Open Learning Centre Armidale News, 3(2):16-20.
- UNESCO  
1983 New Zealand Distance Learning Systems and Structures. Wellington and Bangkok: UNESCO-APEID and Regional Office for Education in Asia and the Pacific.
- UT  
1984 Organisasi dan Tata Kerja Universitas Terbuka (Organisation and Administration of the Universitas Terbuka). Jakarta: Departemen Pendidikan dan Kebudayaan.
- UT  
1989 Lima Tahun Universitas Terbuka 1984-1989 (Five Years of the Universitas Terbuka, 1984-1989).
- UT  
1991 Universitas Terbuka Katalog dan Suplemen 1991 (Universitas Terbuka Catalogue and Supplement).
- UT  
1992 Kebijaksanaan-Kebijaksanaan Universitas Terbuka (Policies of the Universitas Terbuka).

UT

1992a Garis Besar Rencana Induk Pengembangan Universitas  
Terbuka 1992 - 2000 (Development Plan Outline of the  
Universitas Terbuka).

UT

1992b Statistik Mahasiswa Universitas Terbuka Tahun 1991  
(Student Statistics of Universitas Terbuka 1991).

Watts Report

1987 New Zealand's Universities: Partners in National  
Development. A Summary of the Conclusions and  
Recommendations. Perth: ACU Conference of Executive  
Heads of Commonwealth Universities.

UNIVERSITAS TERBUKA

## D. GOVERNMENT PAPERS

Garis-Garis Besar Haluan Negara 1988 (State Basic Policy Outline 1988). Jakarta: CV Baru.

New Zealand Official Yearbook 1988-1989. Wellington: Department of Statistics, New Zealand.

Peraturan Pemerintah Republik Indonesia Nomor 30 Tahun 1990 tentang Pendidikan Tinggi (Government Regulation on Higher Education 1990). Jakarta: Departemen Pendidikan dan Kebudayaan.

Undang-Undang Dasar 1945 (Constitution 1945). Jakarta: Sekretariat Negara Republik Indonesia.

Undang-Undang Republik Indonesia Nomor 2 Tahun 1989 tentang Sistem Pendidikan Nasional (The Law of National Education System 1989). Jakarta: Departemen Penerangan Republik Indonesia.

## E. INSTITUTIONAL PERIODICALS AND DOCUMENTS

### 1. University of New England

Distance Education Centre Armidale News.

Distance Education and Open Learning Centre Armidale News.

External Studies Gazette.

Minutes of Meetings, Academic Board.

Minutes of Meetings, Advisory Council.

Minutes of Meetings, Board of Governors.

Smith's Weekly.

UNE Gazette.

### 2. Massey University

EXMSS Newsletter.

Extramural News.

Minutes of Meetings, Board of Extramural Studies.

### 3. Universitas Terbuka

Minutes of Meetings, University Senate.

Minutes of Meetings, Executives of the University.

Suara Terbuka (The UT Newsletter).

## APPENDIX 1

## LIST OF INTERVIEWEES, UNIVERSITAS TERBUKA

Drs. Adi Suryanto, Faculty of Education, 17 December 1992

Dra. Anik, Learning Resource Unit, Semarang, 3 December 1992

Drs. A. Razad, Faculty of Education, 14 December 1992

Prof. Dr. Atwi Suparman, Assistant Rector III, 21 December 1992

Drs. Bilal Daulay, M.Ed., Faculty of Education, various dates

Drs. Darmanto, M.Ed., Examination Centre, 15 December 1992

Drs. Daryoko, Learning Resource Unit, Semarang, 4 December 1992

Drs. Eko Hartono, M.Ed., Inter-University Centre, 15 December 1992

Dra. Endang Murtedjo, M.A., Head of Library, 10 December 1992

Dra. Endang S., M.A., Faculty of Education, 15 December 1992

Mr. Kasrun, Distribution Centre, 18 December 1992

Drs. Listiodono, Distribution Centre, 17 December 1992

Dra. Mandalina, Learning Resource Unit, Semarang, 4 December 1992

Drs. Mas Mahdi, Assistant Dean III, Faculty of Education, 18 December 1992

Drs. M. G. Sembiring, M.Sc., Faculty of Mathematics and Natural Sciences, 16 December 1992

Ir. Nadia Damayanti, M.Ed., Learning Resource Unit, Semarang, 3 December 1992

Drs. Noehi Nasution, M.A., Dean, Faculty of Education, 22 December 1992

Dra. Nuraini Sulaeman, M.Ed., Computer Centre, 15 December 1992

Drs. Sambas Prabowo, Activity Learning Centre, 15 December 1992

Prof. Dr. Setijadi, Former Rector, 9 & 14 December 1992, other various dates

Drs. Soeharto, Head, Learning Resource Unit, Yogyakarta, 30 November 1991



Drs. Syamsul Islam, Computer Centre, 15 December 1992

Drs. Tarhadi, Faculty of Education, 9 December 1992

Dra. Tetty Rachmi, Media Production Centre, 18 December 1992

Ir. Tuti, Learning Resource Unit, Yogyakarta

Drs. Yan Haryanto, M.Ed., Coordinator of English Education Program, Faculty of Education, 11 December 1992

Staff members, Learning Resource Unit, Semarang, 3-4 December 1992

Staff members, Learning Resource Unit, Yogyakarta, 30 November - 2 December 1992

UT Students, Learning Resource Unit, Semarang

UT Students, Learning Resource Unit, Yogyakarta

UNIVERSITAS TERBUKA

## APPENDIX 2

## LIST OF INTERVIEWEES, UNIVERSITY OF NEW ENGLAND

Ms. Di Adams, Senior Instructional Designer, Distance Education Centre, 27 April 1993

Associate Professor R. J. Baker, Head, Classics and Ancient History, 17 May 1993

Dr. M. A. Brock, Senior Lecturer, Department of Botany, 27 April 1993

Dr. I. R. Campbell, Head, Department of German, 11 May 1993

Professor John Chick, Director, Distance Education Centre, various dates

Ms. Mary Courtney, Senior Lecturer, School of Health, 17 May 1993

Mrs. Jennifer Crew, Former Dean of Arts, 5 June 1991

Ms. Sue Dorland, Counselling Services, 23 April 1993

Professor Keith Entwistle, Dean of Sciences, 13 May 1993

Dr. David R. Evans, Senior Lecturer, Department of English and Communication Studies, 21 April 1993

Ms. Beverley Fisher, External Studies Administrative Officer, Faculty of Arts, 12 May 1993

Professor C. J. Gossip, Head, School of Modern Languages, 14 May 1993

Ms. Virginia Gray, Student Services, 20 April 1993

Professor Grant Harman, Department of Administrative, Higher and Adult Education Studies, various dates

Associate Professor Jack Hobbs, Acting Dean of Arts, 12 May 1993

Mr. P. Hobson, Senior Lecturer, Department of Social, Cultural and Curriculum Studies, 28 May 1991

Mr. A. Nelson, Former Director of Adult Education and External Studies (1954-1955), 29 May 1991

Professor Alan Pearson, Head, School of Health, 13 May 1993

Mr. David Sloper, Senior Lecturer, Department of Administrative, Higher and Adult Education Studies, various dates

Mr. Ian Small, Deputy Director, Distance Education Centre, 6 June 1991; 28 April 1993

Dr. Izabel K. Soliman, Senior Lecturer, Department of Social, Cultural and Curriculum Studies, 28 May 1991

Mr. Barry Squire, Head, Board of Teacher Education Studies, 13 May 1993

Professor David Teather, Dean, Faculty of Education, Nursing and Professional Studies, various dates

Professor John Warhurst, Head, Department of Politics, 15 March 1991

Mr. J. Warnock, Secretary of Academic Senate, 18 March 1991

Associate Professor R. D. Whalley, Head, Department of Botany, 24 May 1991

UNE External Students

UNIVERSITAS TERBUKA

## APPENDIX 3

## LIST OF PEOPLE CONSULTED, USQ DEC, TOOWOOMBA, AUSTRALIA

Mr. J. Barret, Head of Instructional Technology, 10 June 1993

Mr. T. Bowe, Supervisor, Warehousing, Mailing and Despatch, 10 June 1993

Mrs. G. Dodman, Administrative Assistant, Production of Learning Materials, 10 June 1993

Dr. R. Hunter, Associate Director (Operations), 11 June 1993

Associate Professor O. Jegede, Head, Research and Development, 11 June 1993

Mrs. S. King, Head, Outreach, 11 June 1993

Mrs. J. Kirkwood, Coordinator Education Officers, 11 June 1993

Mr. I. McAplene, Educational Media Designer, 10 June 1993

Mr. F. O'Mara, Coordinator, Instructional Technology, 10 June 1993

Professor J. C. Taylor, Director, 10 June 1993

Mr. Ivan Williams, Associate Director (Academic), 10 June 1993

## APPENDIX 4

## LIST OF INTERVIEWEES, MASSEY UNIVERSITY

Professor R. S. Adams, Former Dean of Education, 10 October 1991

Ms. Liz Barker, Extramural Students Society (EXMSS), 9 October 1991

Professor Don Bewley, Former Director of Centre for University Extramural Studies, 25 September, 7 October 1991

Ms. A. J. Blackmore, Extramural Librarian, 26 September 1991

Dr. M. C. Brennan, Marketing, 2 October 1991

Professor G. Cropp, Dean of Humanities, Modern Languages, 4 October 1991

Dr. Peter Donovan, Religious Studies, Member of Board of Extramural Studies, 26 September 1991

Dr. W. L. Edwards, Education, 7 October 1991

Mr. B. R. Garland, Marketing, 2 October 1991

Professor Phil Gendall, Head, Department of Marketing, 2 October 1991

Associate Professor R. D. Gwynn, History, Board of Extramural Studies, 7 October 1991

Mr. John Hogan, Assistant to Vice-Chancellor, Planning and Development, 8 October 1991

Mrs. E. M. Hurley, Agricultural and Horticultural System Management, 30 September 1991

Mrs. M. Kortens, Extramural Teaching Consultant, 4 October 1991

Ms. Clara Lau, Education Coordinator, Extramural Student, 24 September 1991

Professor S. N. McCutcheon, Head, Department of Animal Science, 30 September 1991

Ms. Andrea McIlroy, Management Systems, 3 October 1991

Professor G. McLennan, Head, Department of Sociology, 9 October 1991

Ms. M. Nash, Social Policy and Social Work, 10 October 1991

Associate Professor J. Owens, History, 23 September 1991

Mr. T. A. Povey, Television Production Centre, 1 October 1991

Dr. R. Prasad, Social Policy and Social Work, 10 October 1991

Associate Professor Tom Prebble, Director of Centre for University Extramural Studies, 26 September; 1, 4, 10 October 1991

Mrs. P. A. Richardson, Maori Studies, 27 September 1991

Mrs. Alison Rowland, Manager of Regional Services, Centre for University Extramural Studies, 2 October 1991

Dr. Pat Sandbrook, Assistant Registrar - Enrolments, 25 September 1991

Associate Professor Brian Shaw, Education, 3 October 1991

Professor G. A. Shouksmith, Dean of Social Sciences, 10 October 1991

Mrs. Gloria Slater, Registry - Personnel, Formerly Extramural Teaching Consultant, 4 October 1991

Mrs. Joice Smith, Course Adviser, Centre for University Extramural Studies, 7 October 1991

Mrs. M. E. Stewart, Registry - Academic, 30 September 1991

Mr. W. A. Thomas, Marketing, 2 October 1991

Associate Profreesor A. Walsh, Geography, Board of Development Studies, 3 October 1991

Massey University Extramural Students

Visit to Printery, 30 September 1991

Visit to Despatch, 30 September 1991



## APPENDIX 5

## LOCATION OF INDONESIAN STATE HIGHER-EDUCATION INSTITUTIONS

Institution Name	Provincial Location
I. INSTITUTIONS WITH MAJOR POSTGRADUATE PROGRAMS	
Universitas Indonesia (UI)	Jakarta
Universitas Pajajaran (UNPAD)	West Java
Institut Teknologi Bandung (ITB)	West Java
Institut Pertanian Bogor (IPB)	West Java
Universitas Gajah Mada (UGM)	Central Java
Universitas Airlangga (UNAIR)	East Java
II. LARGER INSTITUTIONS WITH ENROLMENTS ABOVE 6,000	
Universitas Diponegoro	Central Java
Universitas Sebelas Maret	Central Java
Universitas Brawijaya	East Java
Universitas Jember	East Java
Universitas Syiah Kuala	Aceh
Universitas Sumatera Utara	North Sumatra
Universitas Andalas	West Sumatra
Universitas Sriwijaya	South Sumatra
Universitas Lampung	Lampung
Universitas Lambung Mangkurat	South Kalimantan
Universitas Sam Ratulangi	North Sulawesi
Universitas Hasanuddin	South Sulawesi
Universitas Udayana	Bali
III. SMALLER INSTITUTIONS WITH ENROLMENTS BELOW 6000	
Universitas Jenderal Soedirman	Central Java
Institut Seni Indonesia	Yogyakarta
Institut Teknologi Surabaya	East Java
Universitas Riau	Riau
Universitas Jambi	Jambi
Universitas Tanjung Pura	West Kalimantan
Universitas Palangkaraya	Central Kalimantan
Universitas Mulawarman	East Kalimantan
Universitas Pattimura	Ambon
Universitas Mataram	West Nusa Tenggara
Universitas Nusa Cendana	East Nusa Tenggara
Universitas Cendrawasih	Irian Jaya
Universitas Bengkulu	Bengkulu
Universitas Tadulako	Central Sulawesi
Universitas Halu Oleo	South-East Sulawesi

## APPENDIX 5 (Continued)

Institution Name	Provincial Location
IV. TEACHER TRAINING COLLEGES (IKIPs)	
IKIP Jakarta	Jakarta
IKIP Bandung	West Java
IKIP Semarang	Central Java
IKIP Yogyakarta	Yogyakarta
IKIP Surabaya	East Java
IKIP Malang	East Java
IKIP Medan	North Sumatra
IKIP Padang	West Sumatra
IKIP Manado	North Sulawesi
IKIP Ujung Pandang	South Sulawesi
V. OTHER INSTITUTIONS	
Universitas Terbuka	Jakarta
Institut Seni Indonesia (Indonesian Institute of the Arts)	Yogyakarta

Source: MOEC, 1984:9.53-54.

## APPENDIX 6

## MEMBERS OF THE UNIFIED NATIONAL SYSTEM, AUSTRALIA, 1991

Institution Name	EFTSU*
Australian Catholic University	3,900
- Australian Capital Territory	
Australian National University	6,125
University of Canberra	4,800
- New South Wales	
Charles Sturt University	7,105
Macquarie University	8,976
University of New England	9,300
University of New South Wales	17,686
University of Newcastle	8,392
University of Sydney	21,454
University of Technology, Sydney	12,077
University of Western Sydney	7,290
University of Wollongong	5,900
- Victoria	
University College, Ballarat	2,400
Deakin University	12,220
La Trobe University	13,181
Monash University	20,330
University of Melbourne	21,625
Victoria University of Technology	4,943
Royal Melbourne Institute of Technology	13,752
Swinburne Institute of Technology	4,942
- Queensland	
University of Central Queensland	3,080
University of Southern Queensland	5,000
Griffith University	7,047
James Cook University	3,800
Queensland University of Technology	13,544
University of Queensland	16,450
- Western Australia	
Curtin University of Technology	10,140
Murdoch University	3,550
University of Western Australia	8,820
Edith Cowan University	8,245

## APPENDIX 6 (Continued)

Institution Name	EFTSU*
- South Australia	
Flinders University	4,955
University of South Australia	14,105
University of Adelaide	8,820
- Tasmania	
University of Tasmania	7,445
- Northern Territory	
Northern Territory University	1,715

Note : \* Based on 1989 figure

Source : L. Meek, 1992:16-18.

## APPENDIX 7

## UT STUDENT ENROLMENTS BY FACULTY AND REGIONAL CENTRE

(as in December 1991)

Regional Unit	Faculty				Total
	FKIP	FISIP	FEKON	FMIPA	
1 Banda Aceh	1,365	480	323	59	2,227
2 Medan	4,062	1,860	935	242	7,099
3 Padang	2,477	1,510	577	117	4,681
4 Pakan Baru	1,736	965	605	107	3,413
5 Jambi	1,027	656	235	49	1,967
6 Palembang	3,047	2,863	1,141	225	7,276
7 Bengkulu	804	632	229	56	1,721
8 Bandar Lampung	2,535	1,886	597	125	5,143
9 Jakarta	6,421	15,131	10,265	1,602	33,419
10 Bogor	6,333	1,463	975	209	8,980
11 Bandung	16,823	5,667	3,389	870	26,769
12 Purwokerto	2,569	1,202	427	125	4,323
13 Semarang	6,885	3,194	1,567	383	12,029
14 Surakarta	2,936	2,213	803	247	6,199
15 Yogyakarta	1,635	2,136	1,162	259	5,192
16 Pontianak	1,340	965	636	97	3,038
17 Palangkaraya	820	235	61	23	1,139
18 Banjarmasin	1,220	560	318	71	2,169
19 Samarinda	1,077	1,002	740	156	2,975
20 Surabaya	5,727	3,524	1,909	642	11,802
21 Malang	4,386	1,413	705	273	6,777
22 Jember	1,292	299	183	55	1,829
23 Denpasar	1,519	946	438	111	3,014
24 Mataram	1,644	375	159	52	2,230
25 Kupang	1,393	416	147	22	1,978
26 Ujung Pandang	2,794	1,061	514	94	4,463
27 Palu	933	384	112	43	1,472
28 Kendari	814	717	260	31	1,822
29 Manado	1,216	674	277	82	2,249
30 Ambon	851	334	205	37	1,427
31 Jayapura	962	851	392	76	2,281
32 Dilli	477	213	57	7	754
33 Overseas	0	13	15	0	28
Total	89,120	55,860	30,358	6,547	181,885
Percentage	49.0	30.7	16.7	3.6	100

## APPENDIX 7 (Continued)

Note:

FKIP = Faculty of Teacher Training and Educational Studies

FISIP = Faculty of Social and Political Sciences

FEKON = Faculty of Economics

FMIPA = Faculty of Mathematics and Natural Sciences

UNIVERSITAS TERBUKA



## APPENDIX 8

## LOCATION OF UT REGIONAL CENTRES AND EXAMINATIONS

No	Location	Province
1.	Banda Aceh* Banda Aceh Meulaboh Lhokseumawe	Aceh
2.	Medan* Pematang Siantar Kisaran Sibolga	North Sumatra
3.	Padang*	West Sumatra
4.	Pekanbaru* Dumai Tanjung Pinang Batam / Sekupang	Riau
5.	Jambi* Sungai Penuh Muara Bungo	Jambi
6.	Palembang* Batu Raja Pangkal Pinang	South Sumatra
7.	Bengkulu* Manna	Bengkulu
8.	Bandar Lampung* Tanjung Karang Metro Kota Bumi	Lampung
9.	Jakarta*	Jakarta
10.	Bogor*	West Java
11.	Bandung* Purwakarta Serang Cirebon Tasikmalaya	West Java
12.	Purwokerto*	Central Java

## APPENDIX 8 (Continued)

No	Location	Province
13.	Semarang* Pekalongan Magelang Pati	Central Java
14.	Surakarta* Solo Klaten	Central Java
15.	Yogyakarta*	Yogyakarta
16.	Surabaya* Madiun	East Java
17.	Malang* Kediri Pasuruan	East Java
18.	Jember	East Java
19.	Denpasar* Singaraja	Bali
20.	Mataram* Sumbawa Besar	West Nusa Tenggara
21.	Kupang*	East Nusa Tenggara
22.	Dilli*	East Timor
23.	Pontianak* Putussibau Singkawang	West Kalimantan
24.	Palangka Raya* Kuala Kapuas Sampit	Central Kalimantan
25.	Banjarmasin*	South Kalimantan
26.	Samarinda* Balikpapan	East Kalimantan
27.	Ujung Pandang* Pare-Pare Balangnipa / Sinjai Palopo	South Sulawesi
28.	Palu* Poso	Central Sulawesi

## APPENDIX 8 (Continued)

No	Location	Province
29.	Kendari* Unaaha Kolaka Bau-Bau	South-East Sulawesi
30.	Manado*	North Sulawesi
31.	Ambon* Amboina Tual	Ambon
32.	Jayapura* Sorong Wamena	Irian Jaya

Note: The asterisk (\*) indicates the dual functions of learning resource unit and examination location. Other places function only as examination locations.

APPENDIX 9  
STUDY PROGRAMS OFFERED AT THE UNIVERSITAS TERBUKA

NO. STUDY PROGRAMS		LEVEL	FIRST OFFERED*
Faculty of Economics			
1	Economics and Development Studies	S1	1984
2	Management	S1	--
Faculty of Social and Political Sciences			
3	Public Administration	S1	1984
4	Business Administration	S1	1984
5	Development Administration	S1	1985
6	Tax Administration	D3	1986
7	Independent Entrepreneurship	Cert.	--
8	English Studies	Cert.	--
Faculty of Mathematics and Natural Sciences			
9	Applied Statistics	S1	1984
10	Mathematics	S1	1985
Faculty of Teacher Training and Educational Studies			
11	English Language Education	S1	1984
12	Indonesian Language Education	S1	1984
13	Chemistry Education	S1	1984
14	Physics Education	S1	1984
15	Biology Education	S1	1984
16	Mathematics Education	S1	1984
17	English Language Education	D2	1984
18	Indonesian Language Education	D2	1984
19	Natural Sciences Education	D2	1984
20	Social Studies Education	D2	1984
21	Mathematics Education	D2	1984
22	Physical and Health Education	D2	1984
23	Out-of-School Education	D2	1984
24	Pancasila (State Ideology) Education	D2	1984
25	In-service Primary Teacher Education	D2	1990
26	Akta I (Teaching Certificate I)	Cert.	--
27	Akta IV (Teaching Certificate IV)	Cert.	--

## APPENDIX 9 (Continued)

Source: Muryono, 1989; UT, 1991

Note:

\* = Data incomplete

S1 = Sarjana (similar to a four-year first degree)

D3 = Diploma 3 (a three-year undergraduate diploma)

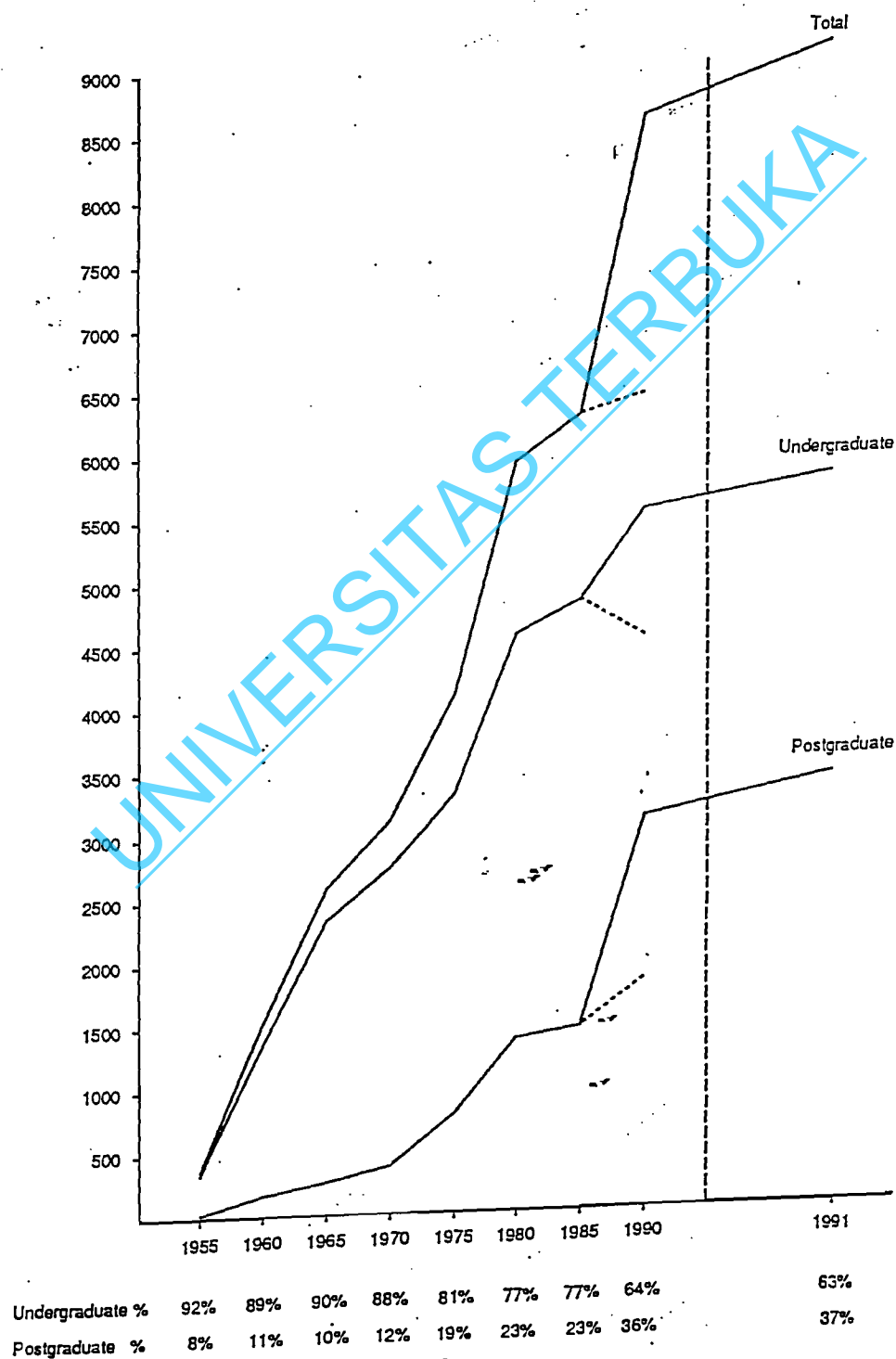
D2 = Diploma 2 (a two-year undergraduate diploma)

Cert. = Certificate program

UNIVERSITAS TERBUKA

## APPENDIX 10

UNE ARMIDALE EXTERNAL STUDENT ENROLMENTS,  
NOTED ON FIVE-YEAR INTERVALS (as at March of each year)



..... U.N.E. / Armidale Campus - Northern only.



## APPENDIX 11

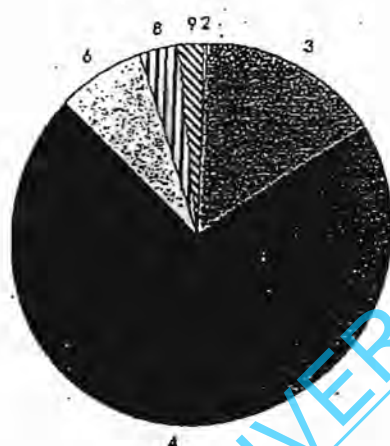
INTRODUCTION OF NEW DISTANCE-EDUCATION COURSES,  
NOTED ON FIVE-YEAR INTERVALS

1955	1960	1965	1970	1975	1980	1985	1990
BA Dip Ed =2	BA Dip Ed Dip Ed Admin +3	BA Dip Ed Dip Ed Admin =3	BA Dip Ed Dip Ed Admin B Ed =4	BA, B Ec B Soc Sc, B Lit Dip Ed Dip Tert Ed Dip Ed Admin Dip Ag Econ Dip Fin Mangt MEd M Ed (Hons) M Ed Admin M Ed Admin (Hons) =13	BA, B Soc Sc B Ec B Fin Admin B Urb Reg Plan B Sc B Lit Dip Soc Sc Dip Urb Reg Plan Dip Ag Econ Dip Bus Mangt Dip Econ Stats Dip Fin Mangt Dip Ed Dip Cont Ed Dip Tert Ed MEc MEd M Ed Admin M Ed Admin(Hons) =20	BA BA (Hons) B Soc Sc B Ec B Ec (Hons) B Fin Admin B Urb Reg Plan B Ed Dip Soc Sc Dip Urb Reg Plan Dip Nat Res Dip Ag Ec Dip Bus Stud Dip Econ Stats Dip Ec Dip Fin Mangt Dip Stats Dip Ed Dip Cont Ed Dip Tert Ed MEc B Ed M Curr St MEd M Ed Admin M Lit M Nat Res M Urb Reg Plan =28	BA BA (Hons) B Soc Sc B Sc B Ag Econ B Ec (Hons) B Urb Reg Plan B Comp Sc Dip Humanities Dip Pub Pol Dip Soc Sc Dip Women's Studies Grad Dip Sc Dip Ag Ec Dip Bus Stud Dip Econometrics Dip Ec Dip Fin Mangt Dip Nat Res Dip Urb Reg Plan M Lit M Pub Pol M Acc MEc M Nat Res M Urb Reg Plan M. Res. Sc. B Aust St Assoc Dip Ab St Assoc Dip Loc App Hist Assoc Dip Nurs Ed Assoc Dip Nurs St Dip Admin (Nurs) Dip Teach (Nurs) B Admin (Nurs) B Ed B Ed (Nurs) Grad Dip Asian St Grad Dip Ed Dip Cont Ed Dip Tert Ed Grad Dip Ed Studies " (Ab St) " (Asian St) " (Loc & App Hist) " (Multicult Ed) " (Prof Studies) " (School Admin) Grad Dip Loc & App Hist Grad Dip Nurs St (Adn) Grad Dip Nurs St (Ed) Grad Cert TESOL MEd M Ed (Ab Stud) M Ed (Multicult Stud) M Ed (Intercult St) M Ed Admin M Curr S =59
363	1511	2576	3104	4075	5898	6255	8568

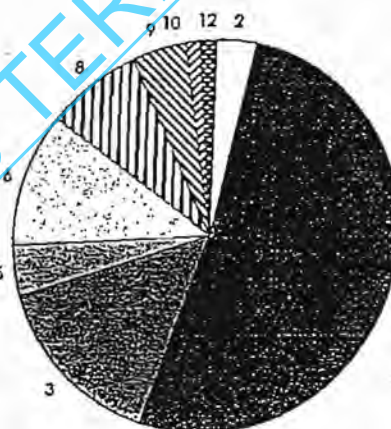
## APPENDIX 12

## OCCUPATIONAL BACKGROUNDS OF MU EXTRAMURAL STUDENTS

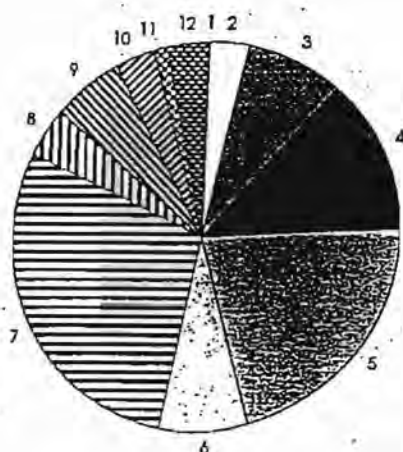
Key			
1	Access trainee	7	Private employment
2	Full time student	8	Beneficiary/Retired
3	Nurse	9	Self employed
4	Teacher/College of Education student	10	Unemployed
5	Public corporation employee	11	Overseas
6	Houseperson	12	Other



1965



1978



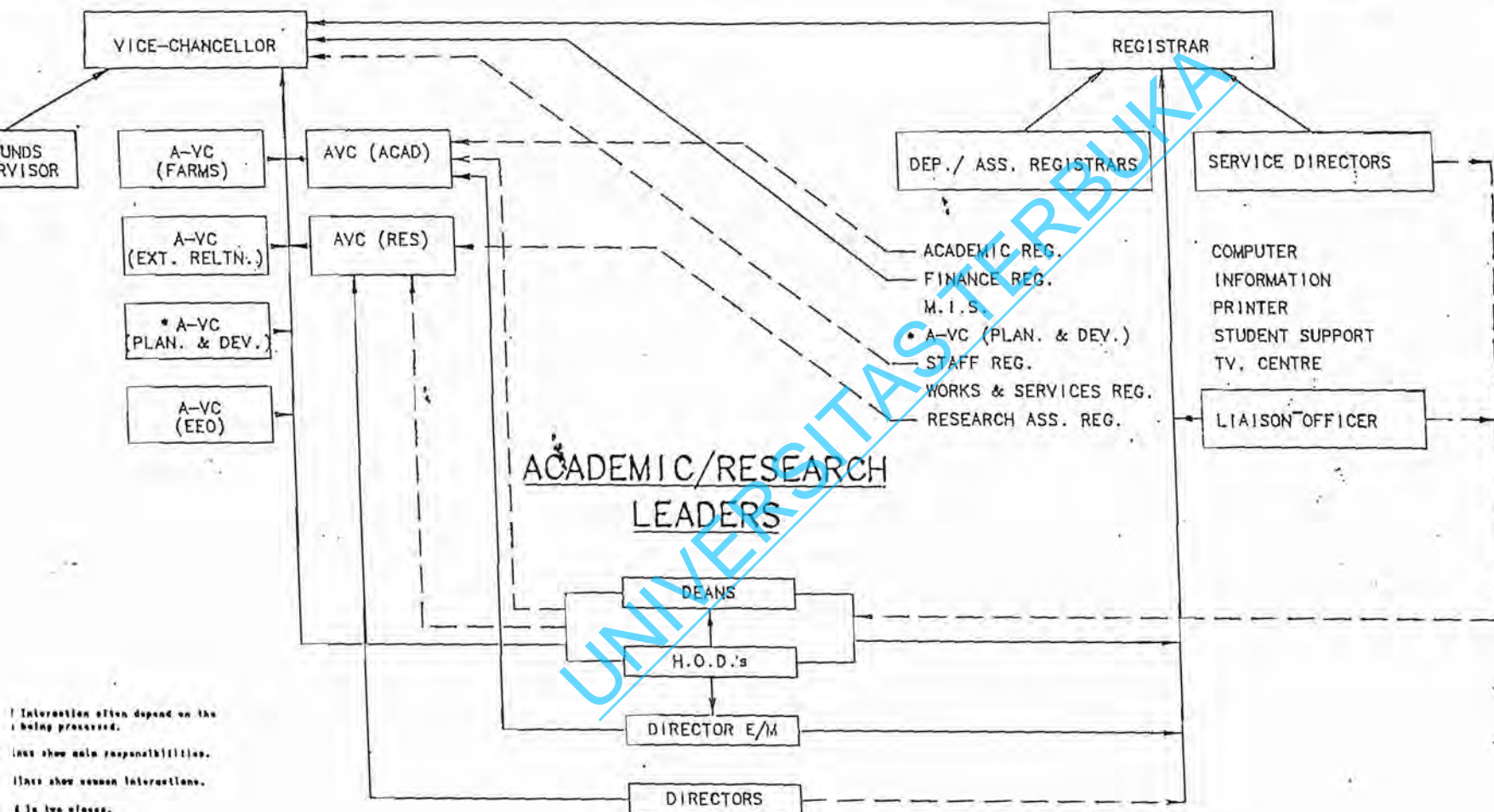
1992 Figures

1	22
2	521
3	1264
4	2007
5	3266
6	1186
7	4498
8	630
9	899
10	552
11	132
12	560

## SENIOR ADMINISTRATIVE STRUCTURE

### OFFICE OF THE C.E.O.

### OFFICE OF REGISTRAR

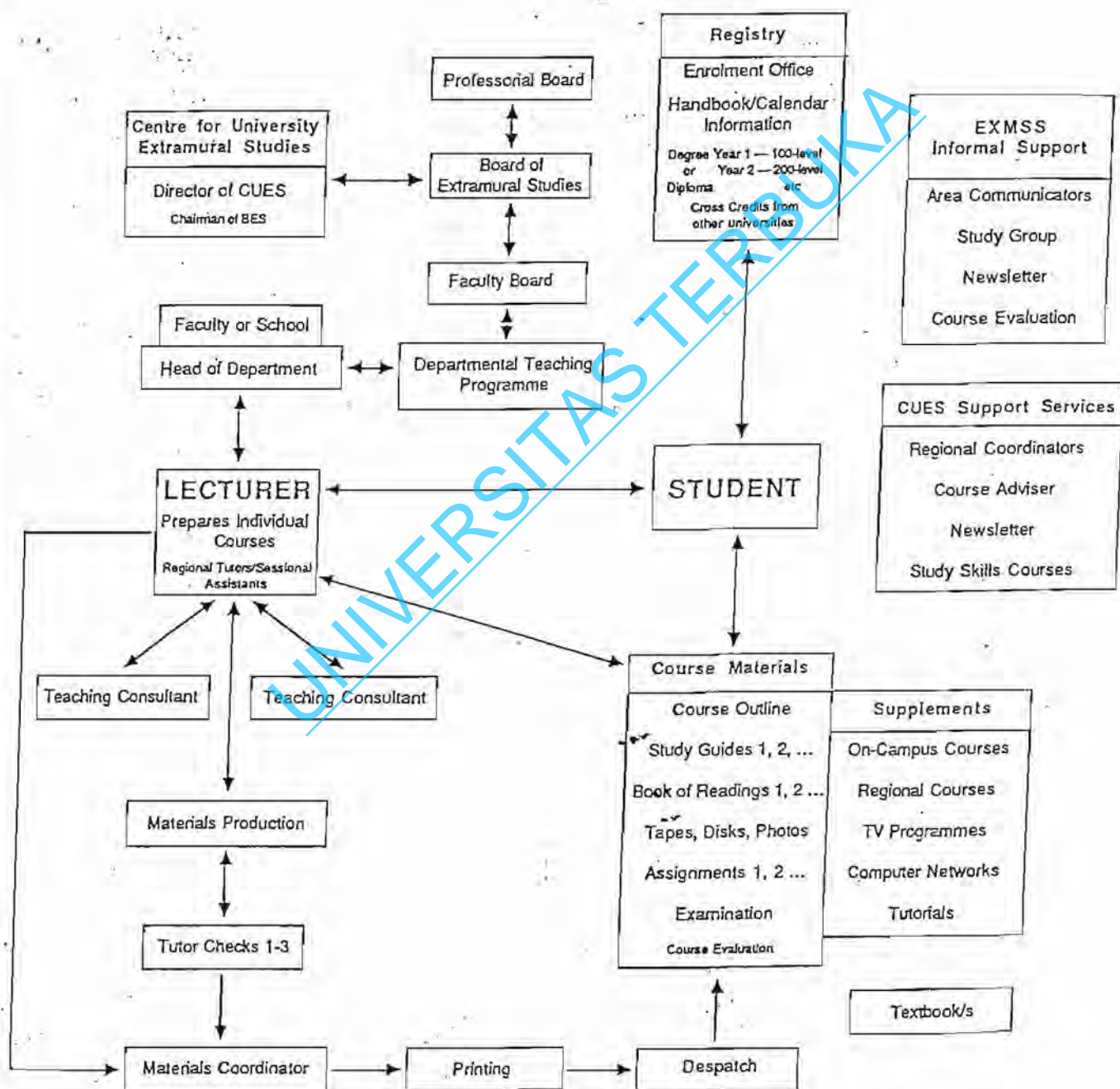


SENIOR ADMINISTRATIVE STRUCTURE, MASSEY UNIVERSITY

APPENDIX 13

## APPENDIX 14

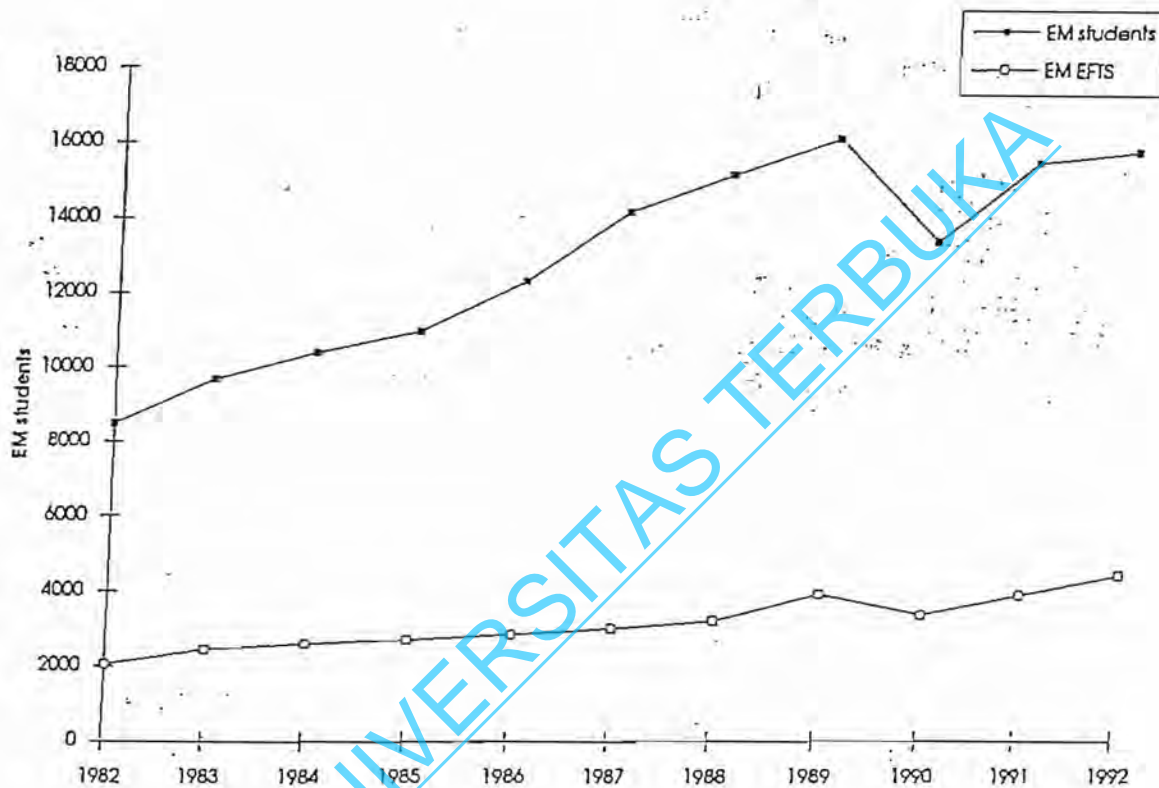
## ORGANISATIONAL STRUCTURE AND LINKS BETWEEN CUES AND OTHER UNITS





## APPENDIX 15

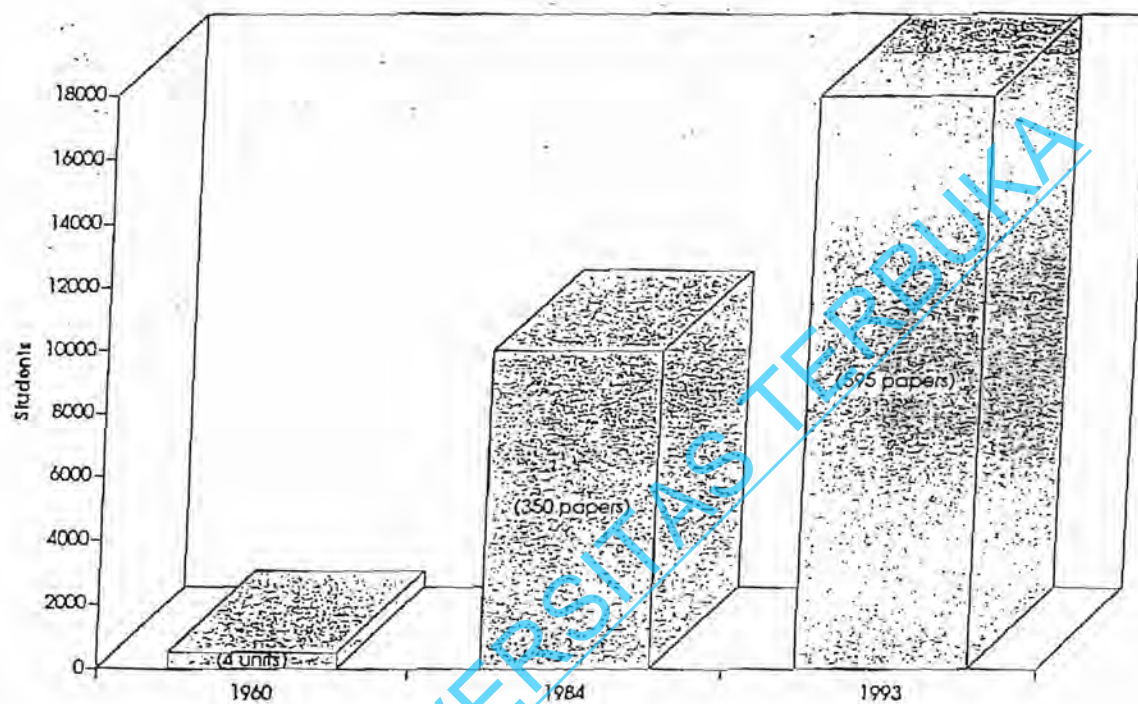
## GROWTH OF MU EXTRAMURAL STUDENT NUMBERS



Source: Pech, 1993:15

## APPENDIX 16

## GROWTH OF MU EXTRAMURAL PAPERS



Source: Pech, 1993:14