PERSPECTIVES ON
DISTANCE EDUCATION

Distance Education in Single and Dual Mode Universities

Papers presented to a
Symposium on Reforms in Higher Education
in New Delhi, India
August, 1992

Ian Mugridge, Editor

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THE COMMONWEALTH of LEARNING

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The Chairman of the Board of Governors is the Rt. Hon. Lord Briggs of Lewes and COL's President and Chief Executive Officer is Professor James A. Maraj.

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ii
CONTENTS

1. Introduction .................................................................................................................. 1

2. Distance teaching at Athabasca University - Dominique A.M.X. Abrioux .................. 3

3. Deakin University - Jocelyn Calvert ........................................................................... 19


5. Single or dual mode: Challenges and choices for the future of education - Marian Croft ................................................................................................................... 49

6. The Open University of British Columbia, Canada - Alan Davis ................................ 63

7. Dual mode institutions: The off-campus centre of Universiti Sains Malaysia - G. Dhanarajan ........................................................................................................... 79

8. Murdoch University: Interlocking the learning modes - Patrick Guion ....................... 93

9. The course-in-a-box: Distance education at the University of Waterloo - Christopher Knapper ........................................................................................................ 105

10. Development and delivery of distance education: The case of Indira Gandhi National Open University, New Delhi, India - B.N. Koul .................................................. 121

11. Distance education in dual mode universities - William Renwick ............................. 141

12. Conclusion: Distance education in single and dual mode institutions - Ian Mugridge and James A. Maraj ................................................................. 153
CHAPTER 1

INTRODUCTION

The papers in this collection were prepared for a symposium on reforms in higher education, with particular emphasis on distance education, held in New Delhi, India, in late August, 1992, and sponsored by The Commonwealth of Learning and the University Grants Commission, India. In addition to the heads of the two sponsoring organizations who jointly chaired the meetings, the participants included the UGC chairs from the four nations of the Indian sub-continent and representatives from local Indian institutions, from three African nations and from developed countries in the Commonwealth. In addition, board and staff members from COL and the authors of some of the papers attended.

It will become clear from a review of the papers reproduced here that they provide neither a comprehensive view nor even a representative sample of distance teaching universities in the Commonwealth. To attempt neither of these things was the result of a deliberate decision on the part of the symposium organizers: the former would undoubtedly have been too bulky to be useful for such an event while the latter would have been impossible to devise without appearing, to some at any rate, to be unrepresentative. Rather, the institutions chosen were included primarily to illustrate the wide variety of means by which Commonwealth institutions provide distance education and to reinforce this by including examples of very different approaches being used in two countries to address circumstances that are at least superficially similar. It was hoped that this fact, which the papers did in fact amply demonstrate, would enable participants in the symposium to draw some useful conclusions about the future of university level distance education in the Commonwealth.

The contributors are all experienced distance education practitioners whose work is known not merely in their own institutions but also in other places both within the Commonwealth and outside. In only one case was a paper contributed by someone who had not spent several years working at the institution about which they have written. The paper on the University of the South Pacific and the University of the West Indies was the result of a COL-sponsored review, led by the author, of both institutions. While not all of the other contributors are still associated with the institutions they have described, the two for whom this is not the case left those institutions quite recently and have maintained their connections with them. All the contributors, however, write from a firm basis of long experience in distance education in general and of a close association with the institutions they describe in particular.

In preparing their papers, the contributors were asked to review
the particular institution on which they were writing, its context and mandate, the institution's approach to distance education and the salient features, the strengths and weakness of this approach. Given these rather wide terms of reference, ten very different contributors have--predictably--produced ten very different papers which exhibit wide variations both in the content of the discussions and in the emphases which the contributors place. Thus, the papers vary from a broad-ranging review of the merits of single and dual mode distance education at the university level which sometimes seems almost accidentally focused on a particular institution through general reviews of particular universities which attempt also to describe basic principles for the development of distance delivery to a very detailed description of policies and procedures in one institution.

The papers have been edited for consistency of form and style but it was decided to permit the other differences to remain. To do otherwise would undoubtedly have reduced the effectiveness of the collection as a whole in revealing the varieties of distance education and of the problems that its practitioners face. In spite of the variations in content and approach, the papers do have a great deal in common, particularly in the conclusions that they draw and the lessons that may be taken from those conclusions.
CHAPTER 2

DISTANCE TEACHING AT ATHABASCA UNIVERSITY

Dominique A.M.X. Abrioux

INTRODUCTION TO ATHABASCA UNIVERSITY

Though established in 1970, Athabasca University has been truly operational as a single mode distance teaching university since 1973, the year in which it started developing course materials and registering students in the initial module of its first course. Since 1973/1974, the university has grown from one that operated with 19 staff members, 3 of whom held academic appointments, and an annual budget of .5 million dollars, to an institution which in 1990/1991 managed an annual budget in excess of 20 million dollars, and retained the services of 252 full-time staff members, 60 of whom held academic appointments, and an additional 272 part-time tutors.

Today, Athabasca University enrolls in excess of 12,000 students per year in its six undergraduate programs and 200 credit university-level distance education courses. Students are often part-time adult learners who generally hold down a regular job or are full-time home-makers. A third important user group consists of students registered in programs at other universities in Canada and who seek, through transfer credit arrangements, to complement via distance education the choices available to them at their campus based institution.

EVOLUTION OF ORGANIZATIONAL STRUCTURE

Whereas organizational structure itself often gives rise to institutional change, the evolution of an organization’s mission and mandate in turn may affect the organizational structure that it has adopted. Researchers of organizational change and culture, most notably Edgar W. Schein (1984) and J. Steven Ott (1989), draw attention to the various growth stages of an organization (birth, midlife, maturity) and their implications for institutional change.

Dominique Abrioux is a professor of French at Athabasca University and formerly Dean of Arts and Science and Acting Vice-President, Academic, in Athabasca, Alberta.
This approach provides a useful framework for discussing the arrangements for the developing and delivery of distance education at Athabasca University, since these have changed significantly over the past twenty years in a way that parallels important changes in how the university evolved and grew.

At birth, the university was seen as an institution which espoused both a non-traditional approach to teaching (distance education) and an equally non-traditional curriculum. Athabasca University chose an organizational structure for developing and delivering its programs that reflected this orientation. Gradually, though consciously, the institution shed itself of its curriculum-related distinctiveness during its midlife cycle with the result that today, at its point of maturation, Athabasca University's curriculum, course content, and program regulations differ little from those of traditional campus based Canadian universities.

This evolution, deemed desirable, was the result of significant changes in how the organization chose to develop and deliver its courses and programs. A less desirable offshoot of Athabasca University's road to institutional maturity was the gradual loss of institutional leadership and innovation in non-traditional teaching, that is, in course development and delivery. While this can be said to have resulted in part from factors beyond its control, in particular the dramatic expansion of distance education in both single and dual mode institutions during the 1980s, there can be little doubt that the evolving arrangements within Athabasca University for developing and delivering distance education, and the fact that it is a single mode institution, contributed significantly to this situation. Whereas the organizational structure during the institution's birth and early years facilitated educational entrepreneurship and innovative course design and delivery, those organizational arrangements, which served the institution very well during its midlife period, need to be re-examined if the institution is, in its maturity, to address the new challenges that an ever-changing environment create.

COURSE DEVELOPMENT/DELIVERY DURING THE BIRTH AND EARLY YEARS (1973-1978)\(^1\)

The early administrators at Athabasca University sought an organizational structure and academic model that would enable the institution to devise and implement a particular, non-traditional, educational prototype. The pilot project, which was not completed until 1975, envisaged the development and delivery of three introductory, interdisciplinary, self-instructional courses. The continued existence of Athabasca University in fact depended upon its ability to meet this commitment and to justify the instructional model that it was to field-test.

\(^1\) Although established in 1970 with a view to becoming the province's fourth campus-based university, Athabasca University was never allowed to fill that mandate. Following a governmental decision, Athabasca University metamorphosed in early 1973 into a pilot project which sought, via the application of new technologies, to facilitate access by adults to baccalaureate-level studies.
Organizational Model

Since course development and production had to be assigned the highest priority during the institution's early years, an organizational structure evolved that accentuated these activities. The founding president of Athabasca University has emphasized the unusual nature of the structure that resulted: "the organizational design of the emerging university was quite unlike that found in any traditional university" (Byrne, 1989, p.57) and has identified "increasing specialization of function" (ibid., p.58) as its key attribute. This specialization resulted not only from the course team approach to course development, but also from the separation of course development and course delivery.

While paying lip-service to the primacy of academic content experts, the university operated during its early years under a model that sought to minimize its reliance on full-time academic staff. Table 1 shows the allocation of permanent positions during this period:

<table>
<thead>
<tr>
<th>Year</th>
<th>Professors</th>
<th>Instructional</th>
<th>Editors</th>
<th>Other(^2)</th>
<th>Courses Delivered</th>
</tr>
</thead>
<tbody>
<tr>
<td>73/74</td>
<td>3</td>
<td>7</td>
<td>1</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>77/78</td>
<td>13</td>
<td>9</td>
<td>3</td>
<td>60</td>
<td>14</td>
</tr>
</tbody>
</table>

If academics were the *sine qua non* of the course development wheel, arrangements for course development provided them with little control or authority. Full-time academics were few in number and were under-valued by an institution that sought to implement what Peters (1971) has characterized as an "industrial" model of education. In fact, as the internal planning document, *University Development, Management and Resources* (March, 1977), clearly demonstrates, the university was quite explicit in its desire to keep the number of disciplinary academics to an absolute minimum:

The services of subject matter specialists *should* be obtained on a consultant or course/project specific contract basis. Such a policy will greatly facilitate the University's speed of response and flexibility in attempting to meet service demands as they are identified. (p.8)

Not surprisingly, internal power and the ability to sway decision making processes rested, in 1977, not with the disciplinary faculty who were regrouped in three departments (Humanities, Sciences and Social Sciences), but rather in two departments that served as institutional nodes--Course Development, and Regional and Student Services. The former regrouped instructional developers and course material editors, while tutorial, counselling, and regional support services were contained in the latter. Together, these two

\(^2\)This category includes professional and support staff, none of whom had academic responsibility for the development or delivery of courses.
departments significantly outnumbered the academic appointees and consequently had an unusually loud voice not just in the development and delivery of specific courses, but also in the selection of curriculum, the establishment of programs, and in the development of institutional regulations governing the university, its model and its students.

This organizational model served the university well during this period and provided a workable check and balance which the more traditionalist discipline-based faculty had to contend with.

Gradually, however, as the university grew and consensus on priorities and mission became harder to achieve, the balkanization of the institution according to different functions, and the resulting absence of institutional power in the hands of the academics, inevitably gave rise to serious problems that had to be addressed during its midlife stage.

Course Development Model

The development of new courses constituted the institution's primary preoccupation during its early years. Course development was considered as the pivotal and central component of a seven-tiered cyclical institutional model containing the following phases:

I Institutional Planning
   (Academic/Financial/Facilities)
II New Program Proposals
III Individual Course Proposals
IV Individual Course Development
V Course Delivery
VI Course/Program Evaluation
VII Course/Program Revision

The preferred model of course development during this period involved the creation of course teams consisting of one or more subject matter experts (academics), one instructional developer, a course materials editor and a visual designer. The development process was iterative and involved active participation by all members at all stages of the process. One course team member, generally the instructional developer, assumed the added responsibility of being course team manager and of coordinating the project.

Initially, the course team prepared a detailed, even exhaustive, course proposal which addressed such aspects as course content, unit by unit learning objectives, learning and teaching strategies, tutorial role, course materials to be developed and/or purchased, selection of media, assessment, course evaluation, and course production costs and time-lines. Most important, a sample unit for the course had to be produced as part of the proposal. Once the university had approved the proposal, the course team was authorized to proceed with the implementation of the plan, that is the development of the course, a process that generally required from two to three years in the case of a 3-credit course.

In so far as the institution was concerned, the pivotal role in the course team was unquestionably played by the instructional
developer. The underlying assumption was that subject matter expertise (academic content) could be contracted for, as and when required, and that innovative instructional developers would ensure the optimal presentation, testing and evaluation of course content. The university retained a minimum number of academics who, in addition to acting themselves as subject matter experts on certain courses, also used their experience and contacts in order to engage external contractual course authors. The heavy reliance on freelance academics, often employed permanently by other universities, had the added advantage of facilitating the acceptance of the university and its courses by sister institutions. This by-product of the course development model was one that the university needed to concern itself with: in contrast to the situation at dual mode institutions, where credibility of distance programs is primarily a concern for their acceptance and recognition by the internal traditional wing of the institution, single mode institutions must concern themselves to a greater extent with external recognition, particularly during their birth and early years.

This *modus operandi* evolved naturally and had to take into account several key factors. First, the novel approach to learning that was being advocated, and doubt as to where the experimental model would lead, required the institution to remain flexible for as long as possible in its structure. Second, the political uncertainty that plagued the university for so many years* would have made it impossible to contemplate a model in which the professorate were to play the principal role. Not only would it have been difficult to find well-recognized and established academics with an interest in innovative adult learning, but to attract them to an institution whose very future was in jeopardy would have been all but impossible.*

Last, the absence of a campus based wing to the institution and hence of readily accessible academic resources, further restricted the options available to the institution.

Notwithstanding the need to create its own course development model, and the rather lengthy time that this particular course team approach to developing instructional materials seemed to necessitate, the university was able to develop certain flagship courses on which it could stake its reputation and future. Given the relatively low honorarium that external subject matter experts received for their contribution (those from other universities were supplementing their income and also using the materials produced by them to further their career within their own institution), and the fact that the courses were primarily print-based, course development costs remained very reasonable.

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*Athabasca University did not receive permanent status from the provincial government until 1978.

*The background of the first group of academics hired at Athabasca University supports this statement: almost without exception, they came from troubled institutions, or were completing or had just completed Ph.D.'s, or held temporary appointments elsewhere. This continues to be the case today.*
Course Delivery Model

As it was necessary to develop a program before admitting students, course delivery remained of secondary concern throughout most of that period. Increasingly, however, the institution was required to shift its focus and to concentrate on the quality and effectiveness of its delivery services.

Table 2 reveals the growth rate experienced by the student body, the part-time telephone tutors, and the professionals engaged in counselling, advising, or generic study-skills-related assistance:

<table>
<thead>
<tr>
<th>Year</th>
<th>Enrolments</th>
<th>Academics</th>
<th>Tutors</th>
<th>Student Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973/74</td>
<td>160</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1975/76</td>
<td>725</td>
<td>9</td>
<td>24</td>
<td>1</td>
</tr>
<tr>
<td>1977/78</td>
<td>1,816</td>
<td>13</td>
<td>49</td>
<td>2</td>
</tr>
</tbody>
</table>

If the founding academic staff were originally responsible for assisting students and for supporting them as they progressed through a particular course, these activities were assured, by the end of the institution's early developmental period, by a cohort of part-time tutors. While examination marking remained the responsibility of the respective academic faculty member, tutors were charged with: personalizing the student's learning experience, assisting the student to understand the course materials, correcting assignments and essays, motivating students, and establishing a liaison between the student and the organization. These activities were conducted through regular telephone contact (at the university's expense) and by correspondence via the postal service. Occasionally, local seminars were held to supplement the individualized telephone tutorials, but these were always optional since most students were unable, for very practical reasons, to attend.

Tutors were hired on a course specific basis and were obliged to keep regular telephone tutoring hours in the evening. Remuneration, which covered both telephone availability and the marking of course assignments, was standard across all courses and tutors and was based on the number of students assigned to a particular tutor. Although responsible academically to the appropriate central academic staff member, tutors were administratively regrouped in the Regional and Student Services department. In addition to coordinating the university's scant regional presences and more extensive central student advising and counselling services, this unit became more and more preoccupied with tutor recruitment, training, and day-to-day administrative support.

The effectiveness of the telephone supported model of course delivery is contingent on the widespread availability of a reliable, and relatively inexpensive, telephone network. When available, such a resource can dramatically benefit the perception, both by students and by educators in general, that distance education need not be a second-class alternative to traditional classroom-based learning. For newly formed distance education universities this can prove to be a valuable asset.
COURSE DEVELOPMENT/DELIVERY DURING THE MID-LIFE PERIOD (1978-1991)

In contrast to the birth and early years of an organization which are normally characterized by cohesion and distinctiveness in organizational culture, mission and *modus operandi*, generally resulting from the strong imprint and commitment of the founder and his or her team of initiators, the ensuing mid-life period often engages an organization in a re-examination and transformation of the values and assumptions which have proved indispensable during the previous period (Schein, 1984).

In the case of Athabasca University, the rapid expansion that institutional mid-life witnessed was accompanied by a significant reworking of the organizational model, best symbolized by the shifting role and importance of disciplinary academics and instructional developers. This engineered re-orientation was accompanied by significant changes in organizational structure and in the way in which the university sought to arrange for the development and delivery of its courses and programs.

Revised Organizational Model

Table 3 attests to the rapid expansion of Athabasca University’s programs and staffing complement during this period and sets the background for the major transformations that accompanied this growth:

<table>
<thead>
<tr>
<th>TABLE 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professors</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>77/78</td>
</tr>
<tr>
<td>83/84</td>
</tr>
<tr>
<td>90/91</td>
</tr>
</tbody>
</table>

If the early years of the university had been marked by a non-traditional organizational design which emphasized the separation of specialized functions, there emerged during the mid-life years a formal structure not dissimilar to that of most tertiary institutions in the country. Gradually, faculties were established which regrouped, in this case, not just disciplinary academics, but also instructional developers and course material editors. By 1983 the course development department had been completely disbanded and all but absolute responsibility for course development had been invested in the two faculties (Administrative Studies and Arts & Sciences⁵). One year later, in 1984, the administration sought to further strengthen the faculties by increasing their responsibility for course delivery: one coordinator of tutorial services was placed in each faculty.

The wholesale integration of the instructional developers into the

⁵1990 saw the separation of the Faculty of Arts & Sciences into two faculties.
faculties was of primary importance and cannot be over-emphasized. The very individuals who had been at the heart of the institution found themselves assigned to the units that had replaced their own in institutional importance. More than anything else, this organizational transformation characterizes the shift in institutional values that occurred during this period. Ironically, the integration of the instructional developers into the faculties was short-lived since the appointment of a new president in 1985 gave rise to the opportunistic creation of the Centre for Distance Education, a research-focused department that reclaimed all but two of the instructional developers. The founding of this centre, however, did nothing to change the balance of power within the institution and it has remained, through no real fault of its own, a symbol void of substance.

Athabasca University's academic vice-president during much of this mid-life cycle, R.H. Paul, has analyzed the role played by university administrators in the revised structuring of the institution:

My basic premise is that organizational changes were orchestrated by administrators, who, however, sophisticated their knowledge of organizational theory and its applications to higher education, analyzed problems and proposed solutions from a traditional bureaucratic or structural functional perspective, with some attention to the collegial traditions and politics of the institution. (Abrioux et al., 1984)

Four principal factors led to the emergence of this re-organized institution with an adapted traditional academic model: the need to dramatically increase the number of course offerings and the time that they took to produce, the stagnation and reification of the instructional design model, the increased importance placed on course delivery, and the growing preoccupation with the need to revise existing courses.

Revised Course Development Model

Under the original model of course development, the fragmentation of resources and responsibility among the many departments with active participation on various course teams gradually gave rise to a production crisis, this at the very time when the institution was committed to rapid expansion of its course offerings. The academic units (Humanities, Sciences, Social Sciences⁶) and the course development department (instructional developers and course material editors) each set its own priorities and attempted, through negotiation, to gain the approval and support of the other. Whereas the former were primarily responsible for the integrity of the academic courses and programs, the latter was responsible for the scheduling and development of individual courses. Since the Course Development unit contained the majority of the human and financial resources devoted to new course development, but had no jurisdiction or authority over an essential component of course development, the permanent disciplinary

⁶Administrative Studies was added in 1978.
academic staff, this process generally failed to serve the best interests of the academic programs. Questions pertaining to the relative priority of projects and to the assignment of instructional developers and editors to specific course teams gradually wore down the collegiality and cooperation which had made the system operational in the early years. To further complicate matters, the existence side-by-side of three or four academic units impeded the establishment of institutional course development priorities, since Course Development and Media Services had to interact with three or four department heads, each of whom was an advocate for his or her own particular area.

The evolving production crisis was heightened by growing dissatisfaction in the contribution that instructional developers were making to specific course development projects. The 1977 internal planning document which had proposed severely restricting the growth of the disciplinary academic staff had also advocated a shifting role for the instructional developers:

It is recommended that these staff members [instructional developers] be given multiple project assignments. It is suggested that they be primarily involved in project planning consultative and design monitoring activities as opposed to past practice where such personnel were usually involved in the detailed development of one course project. (p.10)

In fact, the instructional design model had by this time progressed only slightly vis-à-vis the one which had guided the preparation of the university’s initial courses:

The first, and perhaps the major, principle underlying an effective self-instructional system is reductionism. This involves breaking a typical university course into elements consisting of closely related items of knowledge...

A second principle applied in developing an instructional design for Athabasca University’s first three courses involved the use of learning objectives...

A third principle employed in the formation of the instructional design for a learning series was directed towards student evaluation...In both evaluative forms, either formative or summative, the developers relate the substance of their test items to that of the learning objectives they have selected for each course. In so doing they actually transform these objectives into evaluative criteria. (Byrne, pp.62-63)

Subsequently, the institution, through its instructional developers, advocated the Personalized System of Instruction model, based on work by Bloom, Gagne and Keller (see Coldewey and Spencer, 1982). The practical implementation of this model at Athabasca University amounted very much to a recipe which the instructional developers applied during the institution’s birth years and only monitored during the late 70s and early 80s. Moreover, with the development of senior level courses, often characterized by subjective thinking and more abstract intellectual work, the thorough application of the model was rendered more and more difficult, if not impossible. Increasingly, established Athabasca University
academics avoided or even discredited the model which amounted, in the judgement of at least one academic to "low-level objectives set by instructional developers whose theories of learning are best applied to mice." (Fink, 1982)

Most full-time academic staff, however, benefited from the instructional developer's involvement in the first course authoring project that they undertook. They were new to distance education and more often than not totally uninformed about the rigours of the field. Similarly, the course management role often assumed by the instructional developer was somewhat perplexing when first experienced. Once an academic had learned both the system and the recipe, however, the instructional developer seems to have been considered for the most part as a stumbling block who slowed down the process. An exception to this occurred when a particular course project involved an external author or subject matter expert, in which case disciplinary academics seemed eager to off-load the course team management responsibilities. Otherwise, academics who continued to rely on instructional developers after they had already developed one or more courses, tended to be regarded by their peers as somewhat incompetent.

Coincident with the demise of the instructional developer's contribution to course development has been the increased role of the course materials editor. Academics are not known for clear and concise writing in support of the instructional process and they have often been accused of pitching their prose at their peers rather than at their students: "Unfortunately, many academics wish mainly to impress their colleagues. If the instructional developers are writing for rats, the academics are writing for their colleagues." (Fink, 1982) Gradually editors began to monitor not only the quality of the prose but also the application of basic instructional design strategies. In some ways, the editor's task was facilitated by the withdrawal of the instructional developer from the process, since many a course team had bogged down as a result of friction between these two team members. More often than not, moreover, the course materials editor also assumed the course team manager function, previously undertaken by the instructional developer, whether the subject matter expert was on faculty or whether an external consultant was being used. This function was all the more logically assumed by the editor since the institution had incrementally divorced course development from course production, the formal involvement of visual designers and graphic artists only occurring once the course had been entirely written and edited.

The course team had gradually given way to a highly individualized, sequential course development process. Courses are now created in the faculties by permanent academic staff or by academics contracted on a course-by-course basis. Each project is assigned an editor (also from within the faculty) who, following initial work on the course proposal, will probably not review the course until the subject matter expert has completed the first draft. Instructional developers may be consulted, but it is much more probable that a course author will turn to a colleague in the same discipline for advice and, in cases where the academic is new to distance education, for mentoring. Course authors may also approach media specialists for assistance, but the latter are not
formally involved until the production phase begins.

The course proposal (Phase III) remains critical to the process. Collegial feedback is provided by disciplinary colleagues (both inside and outside the university), by an editor, and by all departments involved in the subsequent production or distribution of the course. Approval of each project resides in the hands of the appropriate dean of study.

Re-enforced Course Delivery Model

The need to coordinate the course delivery function and to maintain academic control and credibility contributed, more than any other factor, to the rise of the professoriate at Athahasca University. An underlying working assumption emerged such that each discipline in which courses were offered had to be represented by at least one full-time academic appointment. As majors or concentrations became available, more faculty were appointed in the same discipline in order to cover both the breadth of the offerings and the academic coordination of the part-time telephone tutors who continued to form the backbone of the individual course delivery system.

This pivotal faculty role was strengthened by the fact that disciplinary academics had always been the link between course development, course delivery, and course revision. Instructional developers, in contrast, had in the past evaluated courses and student/tutor behaviour, but they had demonstrated little interest in direct course delivery responsibilities. The growing need to concentrate on course delivery and course revision, in addition to new course development, inevitably led to a strengthening of the disciplinary academic’s role.

The basic tutorial and delivery models have remained unchanged, through considerable fine-tuning has occurred. For example, the remuneration system for tutors now takes the particular course into account and is arrived at by combining payment for telephone availability and the deemed time taken to mark specific assignments. A centralized, computerized tracking system for monitoring and recording student progress through a course has considerably simplified the record keeping function for both tutors and academics.

Table 4 shows the deployment of delivery-focused staff during the mid-life period:

<table>
<thead>
<tr>
<th>Year</th>
<th>Students</th>
<th>Academics</th>
<th>Tutors</th>
<th>Student Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>1977/1978</td>
<td>1,816</td>
<td>13</td>
<td>49</td>
<td>2</td>
</tr>
<tr>
<td>1983/1984</td>
<td>6,873</td>
<td>39</td>
<td>133</td>
<td>8</td>
</tr>
<tr>
<td>1990/1991</td>
<td>11,229</td>
<td>60</td>
<td>272</td>
<td>2</td>
</tr>
</tbody>
</table>

7The figure for 1977/78 represents course enrolments. The actual number of students would be closer to 1,000.
These data indicate that the steady increase in academic and tutorial appointments paralleled the growth in the student body. While this was achieved through the mid 80s at little or no expense to the other units in the university, this ceased to be the case once the university's financial situation took a turn for the worse towards the end of this period. The table shows, for example, the extreme cost paid by the counselling and advising functions both for the continued expansion of the academic and tutorial areas and for annual increases in the number of enrolments at a time when base funding was decreasing.

ORGANIZATIONAL MATURITY: INSTITUTIONAL STRENGTHS AND WEAKNESSES

Research into organizations and their cultures emphasize the critical nature of organizations once they have reached maturity (e.g., Schein, 1984; Ott, 1989). This is precisely the state that Athabasca University is at today, and its future will undoubtedly depend on its ability to initiate and manage change effectively. References to global economies and to technologically changing environments may be platitudes, but they ought nevertheless to be considered as major concerns for distance education institutions.

Advantages of the Adapted Traditional Academic Model

The transition to this model has undoubtedly served Athabasca University well. Its advantages include:
* the development of accredited, academically respected courses and programs for adults whom traditional universities have failed to serve effectively in the past
* provision for maintaining institutional credibility at sister institutions
* a structure for ensuring regular course revisions and updates
* the integration of teaching and research functions
* the maintenance of a strong tutorial system to complement the individualized course packages
* the evolution of a collegial-based governance system

These accomplishments, however, are never finally achieved and they are so important that the institution must continue to ensure their attainment. In order for this to occur, it is essential that attention be focused on some of the dangers associated with this particular model.

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8. Growth through the mid 80s had been facilitated both by generous provincial government grants to all universities and by special funding received by Athabasca University to relocate from Edmonton and to re-establish itself in the town of Athabasca. By the end of the decade, provincial grants had decreased to the point where they no longer matched annual inflation costs.
Disadvantages of the Adapted Traditional Academic Model

The result of streamlining and placing all but complete responsibility for program planning, course development, and course delivery in the various faculties has unquestionably given rise to a much more traditional institution than was the case throughout the developmental years. Tradition, in and of itself, is neither good nor bad, but, as an institution such as Athabasca University becomes more and more traditional, the danger of creating a learning experience that loses sight of its primary clientele, the part-time adult learner, is immense. This can result not only from the gradual emergence of a traditional university curriculum, but also from rules, regulations, and services that insufficiently match the needs of the particular student body. The dramatic decrease in recent years at Athabasca University in the provision of student support services, such as counselling and advising, is an example of this concern, and must serve as a warning.

Moreover, set against the very real benefits of the current course development model, are some noteworthy disadvantages. The preponderant, almost exclusive role now being played by the internal disciplinary academic in the preparation of course materials has resulted in some isolated instances in the spectrum of sub-standard courses. Instructional developers were not in and of themselves a guarantee of minimally acceptable standards, but together with the other course team members and external readers they did contribute to the quality control mechanism which must now find its way back into the process. While the course material editors can, and have, filled this void to a limited extent, the fact that they do not hold academic appointments and are thus not considered by academics as peers prevents them from adequately playing this role.

A more serious and difficult problem results from the combination of the adapted traditional model and the fact that Athabasca University was established as a single mode institution. Most single mode distance education institutions invest heavily, via an institutional infrastructure, in one primary course development medium. Athabasca University is no different in this regard and it has favoured print to the practical exclusion of all other media (television, radio, audio tape, CAI etc.). One particular problem that this has created has been the unwillingness of the institution to really support desk-top publishing once it had already invested considerably (eg. printers, printing press, computing systems) in a centralized print-based media facility. When one adds to the investment in a single medium the dependence on a fundamentally traditional faculty, and their all but exclusive role in curriculum design, development and delivery, the magnitude of the possible problem is striking. For example, unless the institution is able to benefit appropriately from the new technologies, it will rapidly become outdated and less effective. This will result not only in its serving inadequately the student body, but also in institutional credibility being questioned and undermined by traditional
universities which, ironically though understandably\(^9\), are considerably more advanced in the application of technology to education than are most single mode distance institutions.

The same issues reappear when one contemplates the tutorial model. In the 1970s, the telephone was undoubtedly the most appropriate medium for personalizing and complementing the course materials package in a country where telephone communication was both inexpensive and far-reaching. Is the same true for the 1990s, and if not, is the institution adequately positioned to adapt its tutorial model? Two factors serve to curtail optimism in this regard.

First, the institution has always experienced considerable difficulty in adapting its model to the on-site delivery of tutorial and/or instructional services in cooperating institutions (native schools, community colleges, local educational consortia etc.), even though these arrangements have accounted during recent years for approximately 20% of the institutional enrolments. Second, significant experimentation with alternate tutorial modes, including computer assisted instruction (CAI) and computer mediated communication (CMC), has proved to be very difficult to accomplish under the adapted traditional academic model, in spite of the growing concern over the associated salary costs of the telephone tutorial system\(^10\).

None of these concerns is insignificant and they are matched in importance only by questions pertaining to the relative role of teaching and research. This is not surprising given that the present organizational model and \textit{modus operandi} have evolved from traditional academic values. There is a new twist to the concerns, however, for the debate at Athabasca University often assigns different importance to disciplinary as opposed to pedagogical-based research.

Understandably, the importance of research was not a critical factor in the early years of the institution: not only had the model down-played the role of traditional academics, but those who were hired were often told that their role was to teach (develop and deliver courses). As late as 1989, one of the founding faculty members still advocated this position, even though a collective agreement had been in place since 1978 which explicitly stated that academic appointees were to be evaluated and promoted according to the traditional criteria of teaching, research and community service. The increasing emphasis on traditional academic functions has meant that the university has more and more had to facilitate the undertaking of research by its faculty. Given its advanced stage of development and the availability of most basic courses and programs, this offshoot of the academic model is one which Athabasca University must turn to its advantage. In addition to facilitating disciplinary research and scholarly work that will reflect, both directly and indirectly, in interesting and current courses, the

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\(^9\) Their primary investment is in the independent academic staff rather than in a medium-driven and heavily supported model. As such, the educational delivery system in a campus-based operation can more readily be adapted and experimented with.

\(^10\) A dramatic salary increase resulted directly from the unionization of the part-time tutorial staff in 1990.
institution must encourage and value the thorough researching of the teaching and learning models that it is engaged in now or that it ought to be contemplating in the near future. Distance education institutions must be structured and operate in a manner that best serves today's students while fully anticipating the shifting requirements that tomorrow's clientele will demand. It is towards the accomplishment of this task that pedagogical-based research must turn.

References


CHAPTER 3

DEAKIN UNIVERSITY

Jocelyn Calvert

Deakin University is a multi-campus institution, with almost 24,000 students. Its equivalent full time load is split equally among three metropolitan campuses in Melbourne and two regional campuses at Geelong and Warrnambool. Three years ago, it was the smallest university in the state of Victoria and, situated in Geelong, the only one outside the state capital. It was in this earlier form that it developed its reputation in distance education and evolved its philosophy of the dual mode institution.

The changes in the university have taken place in the context of radical changes in Australian higher education. The binary system of research universities and degree granting, teaching only, colleges was abolished. The number of higher education institutions was reduced dramatically through mergers. Distance education, once carried out by more than forty institutions, was rationalized by designation of eight Distance Education Centres (DECs) and the imposition of financial penalties on other institutions undertaking distance education without using the services of a DEC.

This paper will describe and analyse the culture, philosophy, policies and procedures that shaped and guided distance education at the earlier Deakin, explore the translation of these to a much different university still committed to distance education and relate them to continuing developments in the tertiary education sector.

DEAKIN AS A DUAL MODE UNIVERSITY

Deakin University was incorporated in 1975 through the merger of a technical institute and a state teachers' college. Uniquely in Australia, its act specified that it would provide programs of study both on and off campus. Also unique was the particular approach the university selected to meet this challenge.

Whereas campus based universities typically undertake distance education by translating on-campus courses to distance education mode, Deakin "proceeded the other way round" (Jevons, 1982, p.126). Structured learning materials were prepared for use by

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both on- and off-campus students. Jevons listed three advantages to this approach: first, "self-instructional materials provide consistent quality of instruction"; second, "the use of self-instructional materials is in theory good educational practice"; and third, "students would be liberated from the constraints of the traditional lecture and tutorial system and staff would be liberated from the lecturing grind and free to teach in more interactive ways." It also supported the Australian ideal of "parity of esteem" which stresses equivalent provision, standards and recognition of awards obtained through on- and off-campus study.

This approach was emphasized in the Course Team Handbook of the day which referred to "open campus" students as a mix of school leavers and older individuals returning to study, some of the latter without normal entry qualifications. Teaching was characterized by a combination of carefully structured materials and diverse opportunities for interaction.

The open campus concept had implications for the administrative structures of the university. When distance education is a peripheral part of a university's operations, a special unit typically is created to foster development and provide delivery support. When distance education is systemic, however, the same development and delivery systems must be flexible enough to serve both on- and off-campus students. Thus the organizational structure for distance education at Deakin needed to be much more diffuse than is usually the case.

**OPEN CAMPUS COURSES**

At its establishment Deakin inherited both staff and on-campus students and the development of courses in the open campus format was not uniform across the university. Humanities and Social Sciences subscribed completely and made all courses available to both on- and off-campus students, using the same materials for both. Education retained an on-campus pre-service program while developing courses for degree completion and post-graduate upgrading that are most attractive to teachers in the off-campus mode. Sciences and Management made a similar distinction, teaching undergraduate courses on campus and post-graduate courses off campus (initially Computing and an MBA and later Human Nutrition). Architecture joined with Humanities to create a major sequence in art and architecture.

The first off-campus courses were offered in 1978 and the profile remained relatively stable for almost ten years. Recently, however, there has been an expansion in the number of courses and an explosion in new development. The merger with Warrnambool Institute of Advanced Education added undergraduate business. Also at the undergraduate level are new courses in engineering, commercial law, nursing, biology, mathematics and computing. Post-graduate courses, either Graduate Diplomas or Masters or both, have been added in aquaculture, distance education, adult and industrial education, nursing, occupational hygiene, electronic data interchange, defence studies, development studies, public policy, Australian studies, literary studies and science and technology policy.
as well as several specialties in teacher education.

Since the merger involving the metropolitan campuses is less than a year old, these particular developments have taken place on the Geelong and, to a lesser extent, Warrnambool campuses, both of which have a long history of involvement in distance education. Two major factors, I believe, contributed to the proliferation of new developments after a period of stability.

The first factor was the establishment of the DECs. Prior to the publication of government policy papers that set the conditions for change in Australian higher education, Deakin University had established itself as a leading distance education institution and was limited in expansion by quotas on growth. The Green Paper (Commonwealth of Australia, 1987) and subsequent White Paper (Commonwealth of Australia, 1988) set conditions that challenged the university's comfortable place and required it to compete for a place as one of a few designated centres of distance education expertise. Such designation also held the prospect of favoured status and possible benefits to the university in the form of funding for growth and new developments. While such benefits never materialized, it is not surprising that the challenge of the competition and the prospect of benefits stimulated proposals for new development and growth.

The second important factor was an independent source of course development funds. The Victorian Education Foundation (VEF) is a state body that has sought to encourage, through funding, the development of educational programs that serve the needs of professions and industry. Several of Deakin's new courses are being developed with funds from this source. While such funding is welcome assistance during the development phase when student-based income is lacking, it is a mixed blessing. The VEF does not fund delivery and the costs associated with teaching students must be covered from other sources. With restrictions on charging fees and on the number of students the university may enrol, the enrolment of students in new courses or additional students in off-campus mode requires the transfer of load from existing courses.

The complexity of the problem of allocating load is exacerbated by the most recent merger with Victoria College which took effect at the beginning of 1992. In the merger agreement, distance education was identified as an important feature of the consolidated university and implicit was the intention to expand distance education offerering to include courses from the metropolitan campuses. At present the university is engaged in a process of course rationalization which will point the way to further developments.

OFF-CAMPUS STUDENTS

Using figures for the Geelong campus to facilitate comparison, the number of enrolled students increased from 3,483 in 1978 to 10,580 in 1992. Of these the proportion of distance education students began at 35 per cent in 1978 when off-campus courses were introduced, increased to a high of 66 per cent in 1985 and stabilized between 54 and 58 per cent between 1988 and 1992. In the 1991
university (including the Warrnambool campus), distance education students constituted 38 per cent of equivalent full-time load.

The ratio of on- to off-campus students has altered with the addition of the metropolitan campuses. In 1992, 56 per cent of regional campus students, but only 33 per cent of total students, study off campus.

The profile of distance education students has changed over the years. The proportion of students enrolled for higher degrees increased from six per cent in 1982 to 21 per cent in 1992 and there has been a small increase in the proportion of female students from 56 to 62 per cent. The geographical distribution has also changed with a decline in the proportion of distance education students living in Geelong, rural Victoria and Melbourne. In 1992, 39 per cent live in other states and four per cent are overseas.

The national focus for distance education has been a benefit for Deakin, particularly in connection with the establishment of the DECs since one criterion for selection was the capacity to deliver programs nationally. In this regard, Deakin compared favourably with other institutions that focused their courses in their immediate regions and built in compulsory residential schools.

The methods that are most appropriate for national delivery, however, have in the past made the university disinclined to consider other options involving support of groups rather than individuals. An extended campus program involving students studying in Technical and Further Education (TAFE) colleges lasted, with one exception, only as long as special state funds were available. Since closer relations with TAFE, including course articulation and credit transfer, continue on the national tertiary education agenda, the university will have to continue to review its position. As distance education materials can assist in the establishment and maintenance of standards in devolved and shared teaching and learning systems, Deakin is in a good position to play a role. To date, it must be noted, there have been few incentives and considerable costs in such ventures.

ORGANIZATIONAL STRUCTURE FOR DEVELOPMENT

The pre-merger Deakin emulated some features of the United Kingdom Open University (UKOU) in its procedures and structures for course development. Course teams of academics and people with distance education expertise, print production facilities of a professional publishing standard and an audio-visual unit were intended from the start to distinguish distance education at Deakin from the denigrated correspondence mode then common elsewhere. Units were developed on a three-year time line—one for planning and approvals, one for development and one for production.

While the configuration and names of units that contribute to development have changed over the years, the separate functions remain intact (although awaiting administrative restructuring for the enlarged university). Thus, faculties are responsible for planning and providing the academic content, and teaching and learning strategies of courses, subject to central and separate budget and academic approval and review. The Institute of Distance Education
provides, as one of its responsibilities in the university, advice on the range and appropriateness of different methods and media, and advice and comment on the educational design of materials. Educational Publishing Services provides editing, graphic design, page layout, typesetting (where required) and printing. Educational Media Services produces audio and video materials. Computing and Information Services and the Library are also involved at the development phase, the former as required. These divisions are not currently linked in a single management structure.

There are tensions in this structure. One is the issue of how and when educational design assistance should be provided. As the options increase for the use of media in prepared course packages and in the teaching and learning process, educational design is an increasingly complex task that requires up-to-date knowledge and understanding of appropriate uses and the interaction of various media. Questions are raised concerning the extent to which academics should take responsibility for their own teaching, whether education design advice should be based in and under the control of faculties, whether educational design input should be optional or required, and whether advice should be provided through general and specialist workshops or through attachment of distance education staff to particular projects. Debate on these matters is exacerbated by the increasing scarcity of resources at a time when development is expanding.

A second tension is the natural integration of development and production that has occurred as a result of technological developments. Print materials are increasingly prepared on computers with sophisticated layout facilities and fonts and with editorial aids. They are also easy to revise. Under these conditions, print production logically will occur in tandem with development.

A third centres on the course team approach (although this is not a particularly salient issue at the moment as the university struggles with more pressing organizational issues). Deakin has debated the value of the UKOU-style course team over the years (as has the UKOU). The fundamental question arising from this debate is how to ensure quality and the assumption has been that the underlying value of the course team is its assurance of peer review. With quality a central issue in higher education and currently under discussion at the national level, it will continue to be important for the university to have in place policies and procedures to assure the quality of academic content and teaching and learning strategies. The university’s Academic Board has affirmed the importance of peer review and, through its Curriculum Committee, has established detailed criteria for course approval and review.

A fourth tension arises from competing pressures on academic time and energy. Preparing and revising course materials is one of the responsibilities of academic staff of the university. It is not considered to be additional work nor does it bring extra remuneration. This time consuming activity frequently competes with ongoing teaching responsibilities. It also competes with research, scholarship and consultancies, academic activities that are seen as important for promotion and professional recognition and, especially in the case of the last, bring financial benefits. The university recognizes in its promotion criteria the contribution of
high quality course materials to teaching excellence and makes provision for quality to be demonstrated. It must be acknowledged, however, that teaching excellence alone does not bring academic advancement.

ORGANIZATIONAL STRUCTURE FOR TEACHING AND LEARNING

The pre-merger Deakin evolved a structure for course delivery consistent with its philosophy of systemic organization. At the root of this is the principle that academic staff of the faculties may teach both on and off campus and this is written into statements of responsibilities. Staff may interact and communicate in different ways with on- and off-campus students in the same course unit, but there are no academic distinctions in terms of course content and assessment.

The mode of interaction and communication is not prescribed and course groups and faculties vary in the degree to which they rely on postal and individual telephone communication or incorporate other means. Face-to-face activities, whether compulsory or optional, generally are organized by the faculties. Technology-based communication, such as audio and video conferencing and computer based communication, receives scheduling and programming support from the appropriate administrative or academic support division. Staff development to assist the selection and use of different interactive strategies is provided by the Institute of Distance Education.

The faculties are supported in their dealings with off-campus students by Student Administration. Besides handling the normal duties that apply to students whatever their mode of study (e.g., processing applications and keeping students records), the division has an Off Campus Operations unit to serve the special administrative needs of off-campus delivery. Staff in this unit maintain a telephone service for enquiries and information, distribute course materials, produce and distribute information materials, process assignments sent through the post, organize examinations throughout the country and overseas, and participate in outreach activities in partnership with the faculties.

The organization of teaching and learning thus conforms to the open campus philosophy, with a range of options available according to the particular needs of courses and groups of students within courses, facilitated and supported by a central infrastructure. The flexibility inherent in this approach is one of the university’s strengths as external conditions and opportunities continually change. On the negative side, it can be a cause of strain, both for academic staff and the administrative services that support them. Whereas the availability of distance education materials for both on- and off-campus use should ease teaching pressure, the concomitant availability of diverse options for interaction encourages a tendency to incorporate them into teaching and learning programs with resulting increases in teaching time and financial pressures from travel and line costs.
MEDIA AND METHODS

Deakin's early aspiration to be a national distance teaching university accessible to students wherever they live affected the choice of media and the way they are used. Australia is a large country with a small population. While the bulk of the population lives in several large cities, people living in country towns and rural areas are recognized to be educationally disadvantaged and in need of learning opportunities. Furthermore, the government-imposed limits on enrolment meant that national delivery would result in fewer and smaller concentrations of students, making group-based activities impractical for those courses that do not require them for academic acceptability. Thus, for the most part, courses are designed in such a way that they can be used by individuals studying in physical isolation from the university and other students.

At the core of courses is a print based package with study guide, readings and texts, frequently accompanied by audio or video cassettes or, less frequently, computer software, slides and other study aids. Assessment activities provide a principal focus for interaction between students and academic staff.

The post and telephone are always available for one-to-one communication, although other forms, particularly fax and computer communication, are common. In 1992, the university is participating in a government-funded pilot project that uses broadcast television to make course units available nationally on an open enrolment, fee paying basis.

The university pioneered the use of computer communication for distance education in its Graduate Diploma of Computing in 1981 and recent years have seen an expansion of this mode. Development of an easy to use access and menu system has given off-campus students in some courses access to electronic mail, databases, library catalogues, library book ordering and university information, as well as computer tutorials. An initiative on the metropolitan campuses uses a computer managed learning program to provide industry-based students with year-round, round-the-clock access on a self-paced schedule to learning materials, assessment and tutor assistance.

While computer communication is a developing method of group communication, others have a longer history. Courses may incorporate audio teletutorials, optional weekend schools, formal study groups, and off-campus tutorials, the last primarily in Melbourne. Compulsory residential schools are rare and broadly limited to those that require them for use of facilities or accreditation. Informally, the university facilitates the formation of self-help groups.

Thus, the university employs and supports diverse media and methods in its course packages and for communication and interaction. This means the continual development and diffusion of experience and expertise throughout the university. The problem the university faces now is one of rationing as resources fall further and further short of aspirations. Development and production resources are already over-subscribed, and plans for further developments arising from the metropolitan campuses will increase this pressure.
On the delivery side, the university has begun to devolve to faculties costs that formerly were paid from central funds. Since many of these (such as postage, telephones, communication services and university vehicles) are used to support teaching activities, and since they are discretionary expenditures in contrast to the mainly fixed costs of staff, faculties will be impelled to consider the most efficient use of resources.

STUDENT SUPPORT

It is central to Deakin's philosophy that students receive equitable services, wherever they live and however they study. In some cases, the same facilities serve both on- and off-campus students in the same way. For example, a computer-based registration system provides examination results by telephone and will be extended to enable automated re-enrolment in 1993. The value of this system is to relieve staff pressure at key times by eliminating their involvement in the mechanical aspects of administrative processes and freeing them to attend to the important business of advising individual students and dealing with special cases.

In other cases, comparable services are provided in different ways. Through Student Services, students have access to counselling and career advising and a telephone service is provided for off-campus students. One library collection serves the university. The on-line library catalogue is accessible through the computer network from within the university, through the national university network and via telephone modem. The off-campus service provides subject and item searches, photocopying of journal articles and distribution of books and articles by return courier. Students may contact the Library by a variety of means that include the post, telephone, fax and computer.

INTER-INSTITUTIONAL ARRANGEMENTS

The modern university is not an isolated body, free to pursue its own course separately from the rest of the higher education system. Along with the shift to mass education has come an interdependence that extends beyond the tradition of exchange for purposes of scholarship and research. In distance education, which has been a particular focus of government interest in the re-direction of higher education, interdependence has occurred in response to anticipated and real demands.

One aim of government has been the efficient and wider use of distance education resources to reach more potential students at reasonable cost. This led in the mid-1980s to the establishment of an agreement (the Toowoomba Accord) among five distance teaching universities that enabled off-campus students to enrol in course units of all five as part of their degree courses. The participating universities contributed course units to a pool, selected from the pool those units their students would be permitted to take, and facilitated the cross-enrolment through administrative arrangements. The
scheme lasted with varying levels of participation among the five partners until the establishment of the DEC's in 1989, and a remnant continues today. Pressures of almost universal over-enrolment in Australian universities have proved a disincentive for elaboration of the scheme in the restructured system.

Another way of increasing access and efficiency, particularly when staff resources and student quotas are limited, is shared development and teaching of courses. In this, Deakin has taken two approaches. The Women's Studies major is a shared program in which students must study units developed and taught by three universities in order to complete requirements (Maclean, 1986). This strategy, which also has been followed in a course in development studies with Murdoch University, involves a jointly planned curriculum with different units developed separately by participating universities. Administrative arrangements operating under the Toowoomba Accord facilitate enrolment. An alternative arrangement has been reached with the University of South Australia for the masters degree in distance education. In this course, course units were developed jointly and produced under an arrangement that shared the workload equally. Each university enrolls its own students and interaction among students and staff of the two universities takes place via a shared computer network. Calvert, Evans and King (in press) have analysed the factors that enable and inhibit this type of collaboration. Among key elements are compatibility among contributing academic staff, similar timetables, equal commitment to a successful outcome and continuing managerial cooperation.

The government also encourages developments in credit transfer at the tertiary level. When this involves articulation between the technical and further education (TAFE) sector and higher education, industry also has an interest. Deakin's Technology Management Centre works with a TAFE college and faculties of the university to deliver a laddered course of study in technology management to workers in several major industries. Students are assessed and receive credit for prior learning and study for TAFE qualifications (an associate diploma) and university qualifications (a degree) in a continuous sequence, with exit and re-entry possible at various points. This type of program clearly will expand in future and a challenge for the university is to facilitate diffusion of the principles and innovative features of the program through the faculties of the university.

The establishment of the DEC's was accompanied by creation of the National Distance Education Conference (NDEC) with representation from the DEC's, government and its advisory body, the TAFE sector, and other universities. The DEC's were expected to develop university distance education courses and set standards for quality, to provide distance education services and materials to other institutions, and to foster, through NDEC, cooperative development of distance teaching systems (including the use of technology), rationalization of courses to avoid unnecessary duplication, cooperation in the national delivery of courses and joint information systems. While some advances were made in achieving these aims and a number of cooperative projects were undertaken, the DEC system is widely seen as having failed to meet the goals set.
for it. Contributing factors were the lack of long-term incentives for such widespread cooperation and the continuing opposition of the rest of the higher education system to the control of distance education.

Deakin is also a member, with four other universities and the Australian Broadcasting Commission, of the TV Open Learning Consortium. Its project is funded by government for two years and involves the development or acquisition of seven course units consisting of print materials and television broadcast nationally. Each unit is presented by one or more of the member universities and all recognize all the units for credit. Students purchase materials and receive certificates on successful completion; they are not, however, enrolled students of the universities. The initial success of the project has encouraged the government to consider an expanded (and, for Australian higher education, alternative) system of undergraduate study for marginal fees on a cost recovery basis through a brokerage arrangement. The impetus is the huge unmet demand for higher education (estimated at 40,000 potential students) and universities have been invited to submit proposals.

ENTREPRENEURIAL ACTIVITIES

Expertise in distance education and the infrastructure to support distance education development, production and delivery are marketable commodities at a time when universities are under pressure to expand the range of sources from which they attract funds. On establishing the DECs, the government put in place procedures whereby DECs would provide distance education development services for other universities on a fee for service basis. A national training levy encourages industry to fund work-place education and numerous industries have recognized the value of the flexibility of time and place offered by distance education methods. The same is true of the professions.

Through contractual arrangements, Deakin's development and delivery structures serve more than 11,000 students enrolled in courses of professional associations, a number that surpasses enrolled off-campus students in regular courses. Other contracts provide development services and special allocations support student places for targeted groups.

Such programs enhance the university's reputation, help to augment base funding and build infrastructure. In some cases, such as the technology management program, the terms of the contract and the funding serve a development function, enabling the university to establish systems and expertise that later can serve its regular courses. On the negative side is the problem, also noted in other DECs, of a drain on energy and possible diversion of attention away from the university's central activities. When such contract funding is more generous than that available for regular courses, students who enrol under standard conditions will receive less lavish service. Another problem is the ephemeral nature of some of these activities which see the university gearing up for a program only to shut it down the next year. This was the case with some extended campus programs which received state funding for a limited time.
OVERSEAS ACTIVITIES

Since its establishment, Deakin has taken part in the international networks of distance education. In the 1980s it also had involvement in aid programs, providing course development assistance and advice on system development. In the 1990s, the university is involved in partnerships with overseas agencies and institutions, principally in southeast Asia, for the delivery of Deakin courses.

The longest associations of this type see students in Papua New Guinea and Malaysia completing the first part of degree courses in their home countries using distance education materials and local support before coming to Australia to complete their degrees. More recent arrangements over a wider area involve post-graduate courses that students may complete without residence in Australia. In these cases as well, local institutions provide facilities and support.

CHALLENGES IN THE EXPANDED UNIVERSITY

In 1992 Deakin has doubled its student population and added three campuses. It also has selected an integrated model for the expanded university, with five cross-campus faculties and a common curriculum. The university has identified distance education as one of its major strengths and is committed to its extension across the five campuses.

The first challenge Deakin faces is to spread the culture of distance education across the university. In spite of widespread enthusiasm, the forces that typically resist change in universities, that focus on traditional process rather than outcomes, are not unheard. In meeting this challenge, the university begins with strong executive support. Then, to encourage discussion and formalize policy, the Academic Board has undertaken development of a policy framework concerning students, courses and methods, and the interaction of the three. It is hoped that this process will encourage a sense of ownership and promote understanding of what is involved.

The second challenge is the organization of support for distance education. The systems and structures that supported distance education in a one-campus university were not fully resolved when it expanded to two and require major review with the addition of three more. To this end, the Vice Chancellor commissioned a report that focused primarily on course development and recommended a strong, centralized structure in operational and managerial terms with diffusion of its activities as required across campuses. The report has been released for discussion and reactions have ranged from support for the recommendations to contrary suggestions for a decentralized model with greater responsibilities in faculties. The Vice Chancellor will announce his decision within a month.

The third challenge involves rationing. The integrated university must rationalize its existing courses and develop common services and infrastructure. It must also set priorities for development and maintenance of courses and for the technologies and services it employs for teaching and administration. The course
profile is under review by a course rationalization committee and from this it is hoped that development priorities will emerge. In the area of technologies and services, attention is focused in the first instance on common systems and administrative divisions.

The fourth challenge is staff development, resources for which are already stretched. While this matter is not resolved, attention has focused on finding less intensive means of support, through the development of resource materials and scheduling of group events. It is also recognized that expertise that has evolved through practice in the faculties can contribute to the solution.

NATIONAL CHALLENGES

In 1991, the Minister of Higher Education and Employment Services issued a policy statement setting directions for higher education following the period of radical change (Baldwin, 1991). The statement announced reviews of modes of delivery in higher education and of distance education. It suggested that the techniques of distance education could be used more widely for on-campus as well as off-campus teaching and learning. The use of technology and credit transfer also continue on the agenda.

In addition, the crisis of unmet demand has prompted consideration of the alternative fee paying system. The government proposes to name a broker, a separate legal entity in which at least one established university is a central element. The broker would arrange for a pool of courses acquired from Australian institutions and possibly overseas that would be available on an open entry basis without quotas and lead to awards of established universities. A common prospectus and single registration point, national marketing and promotion, an advising service, credit transfer arrangements, television as a minor element, progressive assessment, examination bookings and library services are also sought. Reference is made to other technologies and to eventual extension to include TAFE. Fees for the basic service are to be kept to the level currently paid by students under the Higher Education Contribution Scheme (A$2400) and no promise of continuing government financial support is made.

Like other universities with significant student load in off-campus undergraduate courses, Deakin must assess the likely impact of this plan and position itself for what may amount to another wave of progressive change. The key points illustrated by this development, and by the other developments of recent years, are that change and challenge are more common than stability and that modern universities must become increasingly flexible to meet the needs of national development and changing economic patterns. This, of course, was the challenge put up by distance education when it rose to prominence in the 1970s and 1980s. Now we are seeing that distance education is not a fixed strategy but rather a symbol for diversity, flexibility and access. What we now call distance education must be capable of taking many forms.
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CHAPTER 4

THE NEW ENGLAND MODEL IN THEORY AND PRACTICE

John Chick

The University of New England (UNE) began in 1938 as a college of the University of Sydney, becoming an autonomous, degree-granting institution in 1954. As Australia's first non-metropolitan university, located in the small country town of Armidale, New South Wales, it had necessarily to define its role in a rather different way from its predecessors, no easy task in a nation which still paid exaggerated deference to British norms. There were few precedents on which to rely. The civic universities of the United Kingdom all served much larger population centres, while nobody seriously supposed that Oxbridge could be translated to the New England highlands.

The preferred solution was radical in the circumstances of the time, involving as it did a decision to enrol students whose primary mode of instruction was to be by correspondence. If the people could not come to Armidale, then Armidale would go to the people. In effect, UNE opted to become what is now commonly known as a dual mode institution.

The move was regarded with horror by the University of Sydney, the reaction of its Professorial Board having been widely quoted ever since:

External studies\(^1\) 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 so imperfectly that the establishment of external studies cannot be recommended.... 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

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\(^1\)External studies' was the term normally used in Australia to denote programs which elsewhere might have been called correspondence courses. Nowadays 'distance education' is often preferred, but the older terminology is still in common use.
that they have had a true University education when
they have not (Smith, 1979).

Given this response there could obviously be no question of New
England implementing its plans while under the tutelage of Sydney,
and it may appear surprising that a commitment to external studies
was written into the Act under which it eventually obtained its
independence.

A number of factors help to explain the breakthrough. First,
there was a precedent, although one which hardly commended itself
to the traditionalists. The University of Queensland had not only
enrolled external students since it opened its doors in 1911, but was
probably the first institution in the world to offer full degree
programs by correspondence. While the Sydney Professorial Board
might believe that "...external systems in other Australian universities
do not provide an example that would be recommended for
imitation", generations of teachers in Queensland had already earned
internationally recognized degrees while working in remote rural
schools. It was the needs of such people which had prompted the
Queensland Department of Public Instruction to join vote-seeking
politicians in insisting that the University of Queensland accept an
external studies mandate as the price of its foundation. Very similar
forces were at work in New South Wales. There too rural teachers
were seen as the main potential clientele for distance education, and
there too it was an alliance between politicians and bureaucrats
which swung the argument in favour of innovation (see Smith, 1979,
and Thomis, 1985).

Academic staff were ambivalent at best. In fact, with a few
honourable exceptions, those at Queensland had been hostile. It was
difficult enough to convince one's peers that one was part of a world
community of scholars when working in a colonial backwater; why
compound the problem by becoming involved in an activity which
was academically suspect? Resistance was never so marked at New
England, partly because Queensland had already given external
studies a patina of respectability--in some eyes at least--and partly
because it was difficult to envisage Armidale ever becoming the site
of a major residential university. In retrospect though, it is
interesting to speculate on whether either institution would have
opted for distance education if it had been led by somebody from a
conventional academic background. The first Vice-Chancellor at
Queensland was L.H. Roe, who came to the university from the state
public service after serving as headmaster of a leading grammar
school. Its main architect was J.D. Story, also a public servant, who
had no university education of any kind. At New England the
foundation Vice-Chancellor was Dr. R.B. (later Sir Robert)
Madgwick, previously Director of Army Education and a man with a
long-standing interest in adult and continuing education. All tended
to be more conscious of the political pressures operating on
educational institutions than the majority of academics, and far less
worried by questions of professional status.

The rest is history. Within ten years UNE had outstripped

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2 Queensland was not alone; the University of Western Australia also had an
external program for many years, but this never assumed the importance of
Queensland's, either within its home institution or on the national scene.
Queensland as the country's largest provider of distance education. It has held that position ever since, despite a proliferation of programs in the nineteen-sixties and seventies which eventually saw more than thirty Australian institutions offering external courses. When the Commonwealth Government attempted to cut down the number in 1989, New England was one of eight universities designated as Distance Education Centres (DECs). By 1992 the Armidale campus had 9,493 external students out of a total enrolment of 14,653, one-third being post-graduates. Teachers have long since ceased to predominate, and eighty different qualifications now cover everything from Aboriginal Studies to Zoology. Being firmly discipline-based, UNE's curriculum may seem a little conservative in comparison with that of some of its competitors, and the university has a reputation for being conservative in other respects as well. However, this is not necessarily a liability in a situation of often bewildering change, nor has it inhibited experimentation. Alongside Latin and Classical Greek are taught Drama and Music, and UNE is more heavily involved than any other DEC in using interactive videoconferencing, talkback radio and broadcast television for educational purposes.

In terms of its significance for the wider distance education community, however, the most interesting thing about UNE is the extent to which its approach to external studies has been adopted by other institutions in Australia and overseas: some commentators use the term New England Model as if it were virtually synonymous with dual mode education, while few writings on the subject fail to mention the influence which Armidale has exerted on developments elsewhere.

This prompts a number of questions. What is the New England Model? What are its strengths and weaknesses? And how is it measuring up to the challenges which face distance education in Australia at the end of the twentieth century?

WHAT IS THE NEW ENGLAND MODEL?

In many ways the prominence accorded to UNE's experience is fortuitous. Some would argue that the 'model' is nothing more than an obvious response to problems posed by combining internal and external teaching in a single institution. Its main features were very similar to those originally obtaining at the University of Queensland, for example. However, in 1949 Queensland decided on a major change of policy, starting to appoint academic staff for the sole purpose of teaching external students, rather than expecting

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3 Only just. In 1965 UNE had 2,376 external students and Queensland, 2,370.

4 Institutions not recognized as DEC were permitted to teach in the external mode, but at the cost of a variety of financial and operational constraints which were expected to force the smaller and less efficient players from the field.

5 UNE was extended in 1989 to include pre-existing colleges at Lismore and Orange, both of which had small external studies programs of their own. These links are likely to be dissolved again in the near future and are not relevant to the present discussion.
lecturers to work simultaneously in both modes. By the time that
distance education began to attract the interest of policy makers
around the world, Australia sported two variations on the dual mode
theme. The terms New England Model and Queensland Model
appeared at the same time, being intended to underline the
distinction between a system with a fully integrated teaching staff
and one in which there was some measure of specialization between
modes. It was the former which exercised the stronger appeal and
has proved the more resilient. Being fortunate enough to have its
brand name associated with a generic product, Armidale rode the
wave to fame, if not to fortune.

Interestingly, when a committee was established to review
external studies at the university in 1987, it failed to produce a
definition of the New England Model, although unanimously
agreeing that it was a Good Thing. The problem lay in deciding on
which characteristics were of central importance and which could be
varied without undermining the system’s conceptual integrity. Some
members believed the disciplinary orientation of degrees, use of
compulsory residential schools and annual revision of teaching
materials were essential features of the model, for example, while
others argued that this was not the case. A distinction had to be
made between the way in which distance education was actually
practised at UNE and those elements in the mix which were of
direct relevance to the question of how best to organize a dual mode
institution. Issues such as the disciplinary basis of knowledge and
value of face-to-face contact between staff and students might be of
great educational concern, but the model was really about
management. Viewed in that light it could equally well be associated
with a wide variety of educational philosophies and practices. Being
unable to resolve the argument the committee eventually decided to
avoid the word ‘model’ altogether, producing instead a list of ‘...key
features of the University of New England’s external studies
operation’, which was a grab-bag of educational and organizational
characteristics (UNE, 1987).

Outside observers have had little more success in producing a
concise and unambiguous definition, but two features are usually
considered to be of paramount importance:

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

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6 The two modes were never so completely separated in the Queensland system as
is sometimes supposed. While the majority of staff teaching externally were
academically responsible to the Director of External Studies rather than the head of a
conventional subject department, a significant number taught in both modes. All were
members of intermodal faculties, which approved courses and conducted examinations.
The system was abandoned in 1986 with a reversion to the older, more fully-integrated
model (see Richmond, 1990).
quality.
Both statements require some elaboration.
For example, the concept of equivalence of standards is fraught with difficulty. Given the very different circumstances in which they work, it is clearly impossible to devise a system which ensures that internal and external students receive an identical education. Substituting the word 'equivalent' for 'identical' makes the task a little easier, but ambiguities remain. Attempts to treat the two groups in exactly the same way are likely to produce divergent results. To ensure equivalence of outcomes one has to provide rather different teaching and support systems; it may even be necessary to modify the curriculum and assessment procedures. The extent to which such variations promote or detract from the pursuit of equivalence is a subject of perennial debate in dual mode institutions. And it is not clear how success or failure is to be measured. A common examination system may allow us to compare the two groups in terms of grades awarded, but tells us little about the quality of the educational process as a whole.

While the discussion of such issues is often conducted in narrowly technical terms, it has a symbolic dimension as well. The adoption of equivalence as a goal suggests that the institution still sees conventional education as the touchstone of excellence. Although it does at least indicate that the educational claims of external studies are taken seriously, critics of the dual mode approach would say that distance education cannot realize its full potential while conducted in the shadow of the campus. Others will argue that this is the price which has to be paid for community acceptance, but it is clear that it also reflects lingering doubts among academics about the degree to which external studies is a valid form of instruction in its own right.

The second defining characteristic involves the difficulty of deciding what is meant by 'substantial administrative responsibilities'. The cluster of functions allocated to specialist units differs widely from institution to institution and from time to time. Most external studies directorates oversee the development, production and distribution of teaching materials. Some control printeries and media resource centres, whereas others purchase services of this kind. There is almost always some involvement in student support, although its nature and extent can vary. Until recently UNE's Distance Education Centre handled matters relating to the enrolment and counselling of external students for example,

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7 As in most systems the typical external student is aged about thirty, has a family and is in full-time employment. Internals are generally in their teens and studying on a full-time basis.

8 At UNE in 1965 "The Department of External Studies [was] responsible in particular for all administrative arrangements concerning external enrolments and withdrawals, the typing, printing, collation and distribution of all lecture material, study guides, etc., the recording inwards and outwards of all essays, assignments and practical exercises, arrangement for residential and weekend schools, examination centres, research and statistics, the maintenance of confidential files for all external students and the provision of a library of reference books to supplement prescribed textbooks." (Sheath, 1965). Some of these responsibilities (examinations, library services, the maintenance of files) have since been transferred elsewhere, while others have been added (especially in the areas of course development and instructional design).
but these functions are now being decentralized to faculties. While every unit will produce cogent arguments in defence of its own particular brief, there seems to be no general rule about what should and should not be included.

In fact there is probably no activity which is an essential part of the directorate's mandate, or which could not be handled satisfactorily elsewhere in the institution. On the other hand, there are usually practical benefits to be derived from drawing a substantial number of functions together under one central management. It certainly makes for easier coordination of external studies operations and has generally been found to be cost-effective as well.

This is only part of the story, however. It is a mistake to judge such units solely in terms of their operational efficiency; their existence and organizational strength also have a bearing on the status accorded to distance education within the university as a whole. No matter how genuine the commitment to off-campus teaching, the student-at-the-study-door almost always takes precedence over the student-in-the-mailbox. An institution may minimize the bias by paying special attention to the needs of its externals, but the general experience has been one of discriminatory provision, often so deeply entrenched in attitudes, practices and procedures that it is barely recognized for what it is. The very different nature of the student body, the heavy reliance on industrial processes and the cultural predisposition to think of teaching as a classroom activity, all mean that distance programs have to fight a constant battle against marginalization. In this situation the specialist unit provides a vital focus of concern for external students and external teaching. It is the one part of the organization which has a primary commitment to distance education, and which can therefore act as conscience, watchdog and goad. How effectively it fills those roles depends upon the leverage which it can exercise on the total system: the specific functions which it performs are not only important for their own sake, but for the influence which they enable the directorate to bring to bear on the processes of institutional governance.

STRENGTHS AND WEAKNESSES

In general the University of New England's external studies system has worked well. The great majority of academics, students and administrators are pleased with the results achieved, and the program has a good reputation in the market place. There is little doubt that the model can deliver high quality education in a cost-effective way, at least within the parameters of existing policy. Of course there is always room for improvement. UNE has sometimes been guilty of taking its success for granted, and complacency has occasionally resulted in a failure to question existing procedures,

9 A recent report goes so far as to suggest that "a dual mode university lies in two academic firmaments", and to say that it "...is a very real question whether the different requirements of face-to-face teaching and distance education can be managed satisfactorily in the same institution". (Renwick et al. 1991, pp.41-2).
search out faults and explore new options. Critics will also claim that the university has become rather less user-friendly as it has grown in size. However, these are management problems which do not have their roots in the nature of the model itself.

Rather than examining particular operations in detail, it may be more useful to look at some of the limitations which are likely to be of interest to institutions embarking on dual mode teaching. Three are already apparent, and three more relate to the question of how well the system is likely to respond to fundamental changes in the educational environment. The first group of limitations is outlined below; the others will be dealt with in the following section.

1. While the model has been reasonably successful in compensating for systemic bias against distance education on an operational level, it cannot claim to have eliminated the sources of that bias, or even modified them to any significant degree.

UNE is particularly well placed to ensure that the two modes enjoy true parity of esteem. It embraced external studies from the outset and relies on distance education for its survival. Staff have a contractual obligation to teach in both modes and are aware of this from the time of their recruitment. Very few are prepared to say that they regret their involvement, and most welcome the opportunity to deal with students whose motivation and maturity make them more rewarding to teach than the average internal class. A significant number of enthusiasts have always taken a genuine interest in the methodology of distance teaching and been prepared to work hard to improve their performance. Almost all defend the academic validity of external studies against those who question it.\(^\text{10}\)

And yet there is a residual belief that correspondence education is not something in which "real" academics should be involved, at least if they aspire to a place in the first rank of their profession. This generates an underlying uneasiness which is often evidenced by the very vigour with which it is denied. Were some enormous demographic shift to make it possible for UNE to become a conventional university, one suspects that few would really regret the change. Looking back on the early years Arch Nelson, who was Acting Director in 1955, commented on the tendency of institutions to regard external studies "...as a marginal extra, rather than integral to their purpose", and added "Perhaps this tendency is less in evidence than it used to be. Perhaps too, it is less evident at New England than

\(^{10}\) Only one of the many submissions from teaching staff to the 1987 review committee questioned the desirability of external studies, and most were supportive of the existing system.
elsewhere. Perhaps.  

2. There is also a sense in which the structures which help to counter systemic bias may simultaneously reinforce it. By carrying out a wide range of external studies tasks on behalf of academic departments and faculties, the external studies directorate distances them from many of the details involved and may weaken their sense of ownership.

To some extent this has been the case at UNE, where what used to be called the Department of External Studies offered a particularly comprehensive range of support services. Academics could leave everything but the immediate job of teaching to others, with the result that many had little understanding of how the system as a whole worked, or of the day-to-day preoccupations of students. At Queensland, the same tendency became even more marked after the appointment of specialist teaching staff to the Department of External Studies. What began as a centre of teaching excellence within the university eventually came to be seen as something of an educational ghetto.  

There is no way of avoiding this problem altogether. A balance has to be struck between the need to build up a unit with sufficient authority to protect the interests of external teaching, and the need to ensure that it remains an integral part of the wider university community. To the extent that power leads to isolation, it can become self-defeating.

3. A particularly important aspect of this dilemma relates to the distinction between academic concerns and administrative responsibilities. Superficially this distinction appears to provide an easy way of differentiating the legitimate interests of teaching departments from those of the external studies.

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11 A.J.A. Nelson, 'The First Year' (Smith, 1979, p.6). Since staff ambivalence is usually well hidden, it may appear to be of little practical importance. However it colours debate on a wide range of policy issues and can have an impact on daily operations, especially when questions of equivalence are involved. For example, the importance which UNE has always attached to residential schools is sometimes cited as proof that the institution as a whole has never really accepted that an academically viable education can be acquired in the absence of face-to-face contact. That is an oversimplification. A number of teaching departments quite explicitly reject any such presumption, while the majority treat attendance on campus as a valuable, but not essential, element in the learning process. However, there are those whose insistence that the external experience mimic the internal is taken to extraordinary lengths. At least one department uses residential periods as an opportunity to cram a semester's lecturing into five days. In such cases it is clear that the logic of distance education has either been misunderstood, or ignored.

12 This is to overstate the problem. It is also true to say that the stagnation from which Queensland suffered in its later years may not have been an inevitable consequence of the system adopted. The department attracted extremely good teaching staff; it was only when growth and staff mobility ceased in the 1970s that the problem of isolation from the academic mainstream began to cause real concern.
directorate. In practice, however, the dividing line is far from clear.

This may be true for all forms of education, but it is especially true in the case of external studies where so much of the interaction between staff and students is dependent on complex administrative processes. If these break down, education ceases. But, more to the point, the way they are handled has a direct bearing on the quality of the student’s educational experience. There are obvious advantages in relieving academic staff of as much administrative routine as possible, but a system which leads to a rigid compartmentalization between teaching and administrative support can obscure the synergies which are an essential feature of effective distance education.

At UNE the first substantive Director of External Studies placed considerable emphasis on the non-academic nature of his role (Smith, 1979, pp.7-13). Under his leadership the department acquired an influence which certainly helped to shape the institution’s academic character, but the myth of administrative separation and subservience was assiduously maintained. More recently it has been challenged by the growing involvement of the Distance Education Centre in course development and instructional design, which inevitably impinge on academic autonomy, and by the appointment of a director with academic status. However, the great majority of teaching staff still fail to appreciate how closely interwoven academic and administrative considerations have to be in the mounting of a successful distance education program. While this may not have been a major concern in the context of the system as it has functioned to date, it will take on greater significance as teaching departments assume direct responsibility for funding external studies operations.

CHALLENGES FOR THE FUTURE

The concerns mentioned above are all implicit in the model as it has operated in the past and do not detract from the general conclusion that it has served the purposes for which it was designed. However, Australian higher education is currently involved in changes which are likely to test the system to its limits and beyond. The way in which institutions react to these changes will tell us a good deal about the capacity of dual mode education to meet challenges of a more searching kind.

1. To what extent can the model be adapted to meet the growing demand for open education?
   It was external studies which first dragged education out of the classroom, disproving traditional assumptions about the constraints which
time and place impose on the teaching/learning process. Some would argue that the open learning movement simply takes these developments to their logical conclusion. At first sight there appears to be no reason why external studies programs should not be modified and expanded in order to allow for a dramatic increase in their flexibility and accessibility.

In practice this is far from easy. A close personal relationship between teachers and students is a central feature of almost all dual mode institutions, whether or not they involve an element of face-to-face teaching in their external programs. To some extent student numbers can be increased by the use of tutors and exploitation of new technologies, but there must come a point at which personal contact is lost. When this happens, many of the basic operating assumptions of the system cease to hold and a radical reappraisal is called for. The integrated teaching model is not well placed to undertake a reappraisal of this kind. Because the two modes are so closely intermeshed it is extremely difficult to break away from a common framework of rules and procedures, usually formulated in response to the needs of the internal program. There is no good reason why distance education should be bound by the rigidities of the academic year, for example, but it almost always is. Variations between the modes are generally relatively minor and achieved at considerable cost.

In other words, the difference between external studies and open learning may be a difference of kind rather than degree. Holmberg regards the New England Model as the prototype of small-scale distance education systems, for example, and contrasts this with such large-scale operations as that of the British Open University. While he believes there are "Far-reaching parallels between these two forms of study", they are in some respects 'opposites' reflecting very different approaches to education. He argues that UNE's approach necessarily imposed the same restrictions on distance study as apply in traditional study, and adds "To the extent that in systems adopting these limitations, the type of distance education applied is felt to be innovative, it is ... innovation within the accepted paradigm." (Holmberg, 1989, p.5 and p.152) Other writers offer more complex typologies which tend to blur the distinction, but there are real doubts about the ability of dual mode institutions to make the transition to more truly open education.

The issue is of more than theoretical concern in Australia, where governments have consistently backed away from the financial and political implications of establishing a single open university.
preferring to build a national system around existing dual mode institutions.\textsuperscript{13} So far the feasibility of this approach has not really been tested, Canberra having held student numbers down to levels which are compatible with the integrated model, and being prepared to provide the resources necessary to fund small unit enrolments and intensive staff/student interaction.\textsuperscript{14}

However, the pressure for change is rapidly growing. For some years there has been discussion about ways in which the system might be 'rationalized' in the interests of economy. Most of the suggested reforms are described as incremental, but in reality break the traditional nexus between modes of study.\textsuperscript{15} Public servants are inclined to attribute the lack of progress to the conservatism of universities, while universities argue that existing government policies militate against any major shift from current practice. The possibility that there may be a structural incompatibility between the existing system and long-term objectives is seldom recognized.

Recently the debate has acquired a new urgency. Frustrated by an embarrassing shortfall in university places, politicians have taken matters into their own hands. In 1991 an Open Learning Policy Unit was set up in the federal Department of Employment, Education and Training (DEET), operating quite independently of those sections of the ministry which deal with distance education. At the same time a TV Open Learning initiative was launched, designed to make credit courses available to the public via the ABC's national television service. Five courses have already gone to air and more are on the way.

Related attempts are being made to pull the various strands together. The Open Learning Policy Unit is talking to external studies providers, a number of committees are preparing reports on the interface between distance education and open learning, and the television project is being run by a

\textsuperscript{13} This was the major recommendation of the influential Karmel Report of 1975, which has been repeated in all subsequent policy statements.

\textsuperscript{14} External student load is funded at the same level as internal, which means there is little incentive to exploit the potential economies of distance education. DECS all claim that costs are virtually identical in the two modes (Harman, 1991).

\textsuperscript{15} Many of these proposals first appeared in Johnson, 1983, and have formed an important part of the Commonwealth's agenda ever since.
consortium of DECs, which includes UNE.\textsuperscript{16} However, fundamental problems remain to be resolved. The universities with a stake in TV Open Learning are having difficulty in reconciling the demands of this experiment with their more conventional programs.\textsuperscript{17} There is also widespread scepticism about the relevance of the forthcoming reports, and mounting speculation about the possibility that a massive increase in the television project will be announced before the trial program has been properly evaluated.\textsuperscript{18}

At this point it remains unclear whether a system will emerge which reconciles external studies with open learning and, in the process, advances our understanding of the relationship between structures and functions in distance education. The alternative is presumably a bifurcated system in which external studies takes a secondary and subordinate place.

2. To what extent can the model be adapted to meet the demands of mixed mode operations and resource-based teaching?

The move to greater flexibility in program structure and delivery on the national scene is matched by increasing pressure to break down the distinction between internal and external teaching within institutions. It has long been the practice to use materials produced for external students on campus as well. Universities differ in the extent to which they have encouraged this development, but it is generally true to say that academic staff have been slow to accept resource-based teaching as a satisfactory alternative to lecturing. More often than not materials have been used as reinforcement for more conventional approaches or, at best, as a partial substitute for face-to-face contact. There has been much less resistance to the idea of students working in both modes simultaneously, perhaps because it poses a less direct challenge to the lecturer’s self-image.

However, there are now signs that the use of materials across modes is becoming much more common. This may mean that proponents of

\textsuperscript{16} A consortium of three DECs was successful in tendering for the project. On DEET’s urging the consortium was later expanded to include a non-DEC, in part at least to underline the point that distance education providers did not have a mortgage on open learning developments.

\textsuperscript{17} Monash University has actually set up separate Centres for Distance Education and Open Learning, whereas most institutions are trying to combine managerial responsibility for the two activities.

\textsuperscript{18} With an election approaching the Commonwealth Minister for Higher Education has recently announced that consideration is being given to providing an additional A$30 million for Open Learning, half of which will go towards a major expansion of the TV Project.
resource-based teaching are winning their case, but it probably owes more to the fact that falling staff numbers and rising class sizes are making it virtually impossible to maintain past teaching practices unchanged.

Many of those working in external studies will welcome this development as vindication of a view which they have been pressing for many years. At the same time it involves dangers. If all teaching is to be based on pre-prepared materials, what reason is there for maintaining distinctive structures for external studies? The answer, of course, is that those structures do not simply relate to the production of teaching materials, but also reflect the very different delivery and support needs of external students. Unfortunately it is in precisely these areas that the temptation to look for quick economies is often most in evidence. There is a real risk that a gradual breaking down of barriers between the modes, so desirable in many respects, will lead to the dissolution of structural support mechanisms which have evolved over many years. If it is true that dual mode institutions are always inclined to discriminate against off-campus students, the loss of such safeguards could lead to a rapid fall in the quality of external studies programs.

3. To what extent is the model compatible with the decentralization of financial responsibility to faculties and departments?

While it would be an exaggeration to suggest that Australian universities have a common approach to management, most are rapidly moving towards systems which involve much closer links between academic decision-making and the allocation of resources. Typically, faculties which were once exclusively concerned with questions of academic governance have become cost centres, responsible for balancing their books and, where possible, generating surpluses. There can be little doubt that this approach has considerable advantages over one in which there were only the most tenuous links between academic developments and their likely cost.

Among these advantages must be counted the fact that administrative expenditure is coming under much closer scrutiny than in the past. Although administrators often complain that academics fail to appreciate the importance of their contribution and pursue supposed economies with excessive zeal, most agree that the general effect is to improve the efficiency of institutions as a whole.

The impact on academic support services is rather less certain. Whereas the normal practice is to fund core administrative functions prior to the allocation
of resources to cost centres, there is a growing
tendency to require support operations to pay their
way by selling their services to users around the
campus. If they are valued by academics they will
flourish; if not, they will go into sharp decline. The
harsh logic of this arrangement is easy to
understand, but could have worrying consequences.

Specialist distance education units are particularly
at risk. Given the tendency for academic
departments to favour on-campus students, any
system which gives them a direct choice between
expenditure on the two modes may well lead to a
shift away from services for externals, especially
since the academic import of supposedly
administrative services may not be fully appreciated.
And once the operational base of the external
studies directorate is eroded, the unit begins to lose
its value as a countervailing force in the setting of
institutional priorities.

It is too early to say that this will happen, but the
majority of Distance Education Centres report signs
that it could. At UNE the DEC is experiencing a
dramatic loss of control as a result of the rapid and
poorly planned decentralization of both functions
and finances. Attempts are being made to
compensate for the loss of operational centrality by
reinforcing the centre’s powers in the areas of
quality control and policy formulation. This may be
a logical development of the model, but nobody yet
knows how effective such a change of focus will
prove to be. It remains to be seen whether distance
education is moving into the academic mainstream,
as the proponents of such changes claim, or will
have to face a new period of marginalization.

CONCLUSION

The New England Model has been a success in its own terms. It
offers a framework within which teaching institutions can make
their expertise available to a wider public without compromising
academic standards. Admittedly it does not resolve the tensions
between internal and external studies nearly as effectively as some of
its supporters claim, and the heavy emphasis placed on inter-model
equivalence makes for relatively high unit costs and restricts the
system’s capacity for innovation. However, single mode institutions
are not entirely immune from such limitations either (Harris, 1987),
and the constraints have not prevented UNE from providing high
quality, multi-media education for up to 10,000 students at a time.

The real problems arise when one wishes to cater for
significantly greater numbers, at significantly less cost, and with a
significantly greater degree of flexibility. There is a good deal of
force in Holmberg’s argument that such major changes are
incompatible with the relationship between modes which is the
defining characteristic of the New England Model.
That need not mean that such changes are incompatible with dual mode education, or that there is a point beyond which UNE's experience becomes irrelevant. As Queensland's experiment with the appointment of specialist staff suggests, there are other ways of organizing teaching in two modes. Very few of these have yet been explored in any depth, because the success of the integrated model has made it unnecessary to look any further. The pressures which are now being brought to bear on the system may generate entirely new solutions, although it is unlikely that these will be able to transcend the dilemmas with which we have been wrestling in Armidale over the past thirty-seven years.

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CHAPTER 5

SINGLE OR DUAL MODE: CHALLENGES AND CHOICES FOR THE FUTURE OF EDUCATION

Marian Croft

University distance education exists in two principal forms: either a university offers a distance education program in addition to traditional classroom teaching or it is an institution solely devoted to teaching at a distance. Over the twenty years since the open universities were created, there has been much discussion about the differences and similarities, the strengths and weaknesses of the two types of institutions. We must first, however, understand the foundations of the university in the late twentieth century. Its values and traditions will help us determine if distance education is compatible with the university, for the same values and traditions are claimed to form the foundation for open universities.

We must question how and where future educational needs can best be met. Does the conventional university, with its strength in tradition, research and scholarship, provide us with the best hope? Or do open universities, with their remarkable contributions to accessibility and equity, suggest a system of two distinct university types, one completely devoted to in-person education and the other to education at a distance? Or does the best answer lie somewhere between the two, or in both, with dual mode universities making a new commitment to the importance of teaching and learning, a commitment aided by the contributions of distance education and new partnerships between the two?

Universities evolve and change, despite a strongly held internal mythology which claims the opposite. Within the traditional system, regional universities such as Sudbury’s Laurentian University, rather than research institutions, are those most likely to reveal new trends. Laurentian is a dual mode institution which has experienced all the difficulties inherent in the uneasy peace between distance education and traditional teaching. However, as part of an evolutionary process, several of the new developments at Laurentian offer a path for the future. This future includes increasing internal commitment to the concepts and realities of distance education as well as partnerships with open universities, to bring the best of their

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ORGANIZATIONAL CULTURES OF THE UNIVERSITY

The concept of organizational culture provides us with insights into the belief structures and processes of organizations, enabling us to consider the way in which innovative teaching methods and distance education may or may not fit into the culture of the traditional university. Organizational culture is considered to have six common meanings: observed behavioural regularities; the norms of working groups; the dominant values espoused by the organization; the philosophy that guides policy development; the rules for getting along; and the feeling or climate in the organization. (Schien, 1987, p.6)

In a recent book, The Four Cultures of the Academy, William Bergquist (1992) provides some insight into the conflict distance education can create in a traditional university. Bergquist outlines four separate cultures which can exist in the contemporary university: the collegial culture, the one traditional universities believe they espouse; the developmental culture, common in distance teaching institutions, which focuses more on teaching and learning than on scholarship and research; the managerial culture, which seeks to 'manage' the university and emphasizes quantitative measurement; and the negotiating culture, resulting from the collective bargaining process.

The collegial culture most nearly approximates the way in which universities see themselves. Pure collegial culture values autonomous faculty work in teaching, scholarship and research. Promotion decisions are never based on direct observation of the teaching performance in the classroom. Obviously, in its purest form, this culture will not tolerate the inroads that distance education course development and design specialists can make into faculty autonomy. Academic freedom is one of the dominant norms of the collegial culture. Its major emphasis is on independent work—teaching alone, planning curriculum and courses alone and often researching alone.

The developmental university culture is of particular interest as a more accurate description of the values of the open university. This culture values personal and organizational dynamics and institutional mission, which link it more closely to the managerial culture than the collegial. It believes that teaching and learning should be at the heart of the academic enterprise instead of scholarship and research. It advocates an inter-disciplinary, problem-solving or theme-oriented approach to curriculum development, which fits nicely with the concepts of course development by teams. This culture values collaboration and has a real commitment to inclusiveness in decision-making and planning as well as an emphasis on conflict resolution. Missions and goals are of particular importance.

The managerial culture is concerned with accountability and fiscal efficiency which may make distance education attractive as it, to some extent, substitutes capital for labour. The negotiating culture has two particular values, equity and egalitarianism, whereas the dominant collegial culture usually believes that more is worse. The negotiating culture exists in response to the managerial and is in
a sense, contradictory. The requirement of membership in the collective bargaining unit is antithetical to academic freedom.

Clearly, no university exists purely in one or other cultural form. Most institutions may exhibit values of any of the four cultures in specific situations, but the collegial values dominate the contemporary university. How do these values influence the university of today and what external forces also affect it?

THE CONTEMPORARY UNIVERSITY

Distance education on today’s global scale is little more than twenty years old. Although its roots lie in the correspondence schools of the late 1800s, similar to that started at Queen’s University in Canada in 1889, today’s distance education began in the 1970s with the creation of the massive national open universities like the Open University of the United Kingdom; the Fernuniversitat of then-West Germany; the open universities of Holland, Spain, Portugal, Costa Rica, Colombia; Sukhothai Thammathirat Open University in Thailand; Indira Gandhi National Open University of India; Universitas Terbuka of Indonesia; and Universitas Nacional Abierta of Venezuela. Most of these institutions arose from a pressing national need for education on a grand scale where an educational infrastructure was not well developed or where an existing system was perceived as elitist and closed.

Some countries developed teachers’ institutes (Nigeria) or open schools (India), but by far the majority of the open institutions created since 1970 are universities. This tradition continues with the development of the open university of Bangladesh.

This university status is of particular interest because in these countries it was the university system which was seen to have failed so completely to serve national educational needs. Nevertheless, there is little question that the status and prestige of the university was what national governments sought. They wished to create institutions with the best qualities and reputation of the existing university system, but which were open and accessible and capable of educating large numbers of people as inexpensively as possible.

In many countries, distance education at the university level was already active in dual mode institutions. For example, in Canada the University of Waterloo, Laurentian University, the University of Ottawa and several others had distance education programs before Athabasca University was founded as a single mode institution. In other countries, like Australia, distance education has remained within the traditional universities. In the United Kingdom, the success of the Open University led to the creation of the Open College and now the Open Polytechnic, as well as to distance education programs in other institutions.

Many external factors affect the university at the close of the twentieth century. The contemporary university in much of the western world exists in a state of contradiction, believing it exists to educate the 18 year-old high school graduate within the collegial culture, while faced with increasing numbers of adults in the classroom. The needs and interests of the young student continue to shape and form institutional policy and procedures. Writing of the
American situation, Millard describes a very different student body: of the twelve and a half million students enrolled today, fewer than two million are 'traditional college students', that is eighteen to twenty-two year-old full-time campus residents. More than half the students are over twenty-two years of age; 40% are over twenty-five, there are more students over thirty-five than there are eighteen year-olds in college; two fifths are enrolled part-time; and considerably more than a third live off campus. By the year 2000, the adult part-time student is likely to be the new majority, yet most institutions still tend to operate and be structured on the assumption that the traditional students is the norm. (Millard, 1991, pp.3-4)

In Canada, part-time university enrolment doubled between 1972 and 1990 and nearly half of those enrolled in some form of education and training in 1990 were between the ages of 25 and 44. (Statistics Canada, 1992) The statistics are the same throughout the western world, while, in the developing world, high birth rates keep populations significantly younger. So the university of today's developed world faces a major demographic challenge, which will have a lasting effect upon collegial culture. Nevertheless, the ideal type of education is still represented by the traditional full-time approach.

The contemporary university recognizes the essential role of the teacher-scholar in shaping academic policy, maintaining academic standards and providing instruction. It places a high premium on student-faculty contact, particularly when that contact takes place in the transmission of knowledge through lectures and seminars. This places it in direct conflict with the basic structural realities of open universities.

The Socratic teacher-pupil relationship upon which the traditional university is based, has remained a dominant feature of higher education since the emergence of the university in the Middle Ages. There can be no question that faculty remain the centre-piece, the academic capital, the basis for the uniqueness and reputation of these institutions. This has resulted, however, in a set of assumptions which support the belief that effective education only occurs on campus, within traditional classes, laboratories, tutorials or seminars, in clinical or practical programs carried out under the supervision of professionals. This form of education requires the enriching experience of residence and face-to-face instruction. It is an elitist and restrictive vision of university education, with little or no relevance today or for the future. It is a vision which fits nicely into the collegial culture.

The reality is that increasing numbers of universities teaching adult students offer programs off campus, in industrial locations, by different timetables, at a distance. The extended campus becomes a community of teachers and learners wherever they may be. If this shift is real, then one of the fundamental differences between distance education and the traditional university may be solved by time and expediency.

This will probably occur first at regional universities such as Laurentian, committed to their communities and more likely to
exhibit characteristics of the developmental culture. Research universities, committed to the traditional form of higher education and closer to the dominant collegial culture, may follow later.

The shift to an extended campus depends on more than simple physical location. The instructor's freedom to develop and present subject matter touches on two of the concepts fundamental to both instructional and research integrity, academic freedom and the authority derived from expertise in a field. Much distance education is in direct conflict with the autonomy of the instructor. Distance education changes the nature of the classroom in a manner which may seem to undermine the teacher's central role and authority in the instructional process, and limit his or her freedom. Instead of being directly responsible for the development and delivery of the course, the instructor now has to deal with technicians, designers and editors. Teaching effectiveness depends not just on the instructor but support personnel, various services available to the student and on equipment and technology.

The problems this creates are easily described: Faculty who embark upon course development for technological delivery are often in for a rude awakening. They find they are submerged in the course development process, taking a back seat to production and technical personnel. Faculty are relegated to the role of content consultant, while the media course takes on a life of its own. (Grossman, 1987, p.9) If this represents an accurate picture of the development process, it is no wonder that dual mode institutions, committed to the collegial culture, are now being forced into developmental, managerial and negotiating modes to deal with such problems.

Attempting to maintain the supremacy of the collegial culture, however, creates other problems.

Experience has shown that university academics, especially if unchecked by editors and instructional designers, have a tendency to overload courses prepared for home study, primarily because they know that, unlike their classroom teaching, which is hardly ever observed by peers, their 'open' courses will be in the public domain and available for scrutiny by other academics. As a consequence, their first concern is that these courses be unquestionably respectable academically. (Paul, 1990, p.59)

Instead of being the professor, the instructor in a distance course becomes a facilitator and the dynamics of the course and the teacher-student relationship change. If presented properly, this should be a positive experience as it will free the professor to spend more time actually communicating directly with individual students and problem-solving. Distance education raises new questions on the very process of teaching and learning, questions which badly need to be addressed in the traditional university, but which are seen as of lesser importance in the collegial culture.

Faculty see distance education threatening the integrity of the traditional instructional/learning process. Throughout the period of study leading to the granting of a doctoral degree, individuals are rarely introduced to the art, science and special responsibilities of teaching or learning, either in general or in relation to specific
disciplines. Nothing dispels the attitudinal aspects of discomfort with distance education—a fear of change, a fear of technically complex devices used to deliver courses; concerns that students may not get the education they deserve, about one’s own reputation, about job security, that distance education will make faculty superfluous, a resistance to learning new things, a worry that students will not adapt, scepticism about the abilities of distance education to deliver what it promises, and previous negative experiences. Again, it is little wonder that faculty in traditional universities, no matter how strong their personal orientation to a developmental culture, are unlikely to embrace distance education happily. Yet it survives and even flourishes.

Faculty are also often justifiably concerned about standards, both for their professional reputation and that of their institution. "Especially because its roots are in correspondence education, which many people still associate with drawing courses advertised on the back pages of comic books, distance education does not yet enjoy the status of more traditional modes of scholarship." (Paul, 1990, p.59) The concern for standards is often included in the equity versus quality argument, based on the incorrect assumption that greater access will necessarily result in decreased quality since there is a limited pool of ability in the population. Unfortunately, in this equation excellence and quality may become rationalizations for denial of access and opportunity. (Millard, 1991) This situation is reinforced by the dominant norms of the collegial culture.

Access alone is not enough. Many distance education writers and researchers have described the 'open door versus the revolving door' situation which occurs when institutions accept all students but do nothing to help them achieve success. This is not necessarily to support the 'value-added' concept of education, but rather a plea for the recognition that adults learning at a distance have special needs: accurate and timely information from one source; consistent and accurate academic counselling for program planning, admission and registration assistance; financial assistance, especially for women re-entering the academic world; access to necessary materials from the coordinating unit, bookstore, library and instructional media centre; and tutoring when the student needs help with the course materials, not at the convenience of the institution.

STRENGTHS AND WEAKNESSES

If the open universities were created to redress the problems of the traditional university system, whether problems of scarcity or of access, they should have obvious strengths. Just as obviously, given their fight for academic credibility, there are weaknesses in the concept of separateness.

The weaknesses of the dual mode system are also well-documented and self-evident. Not so obvious are the strengths of the dual mode institution, where, despite questions of quality and second-class status, distance education has survived and even flourished for over one hundred years. Dual mode institutions may also function very differently if they are regional universities with a commitment to community service built into their mission.
Single mode institutions are the "top-of-the-line" in distance education. Established to teach solely at a distance, they are unencumbered by conventional classroom teaching, allowing them to focus on developing and managing distance education. Academics are involved in all production and teaching processes. The processes are flexible and may be changed to meet changing needs. Since autonomy and program control rest with the institution as a whole, not with faculties and other administrators, all systems are focused on the distance education student.

The single mode university is closer to the developmental culture than the collegial. It stresses the relative importance of teaching and learning over scholarship and research, and emphasizes the value of the collaborative process. Its focus on personal and organizational dynamics, and the importance of the institutional mission, also link it more closely to the managerial culture. (Bergquist, 1992) This value system relating to personal and organizational dynamics is borrowed from the literature on organizational development in corporate settings. The course team process is especially supportive of and supported by a developmental culture which is committed to the concept of inclusiveness in decision-making and planning and which emphasizes conflict resolution.

The open university is staffed with distance education professionals, individuals with specialized training in instructional design, educational technology, adult education, evaluation and student support. Services are developed for the needs of the adult client. Trained tutors, administrative units, library, bookstore and instructional media services all begin with the idea of educational outreach.

When faculty are hired to work in an open university, however, they are necessarily recruited from traditional institutions. As a result, they are often in conflict with those who were attracted to the ideas of innovation in design and development. (Mugridge and Kaufman, 1986)

Single mode institutions also have a difficult economic reality. In dual mode institutions, many overhead costs are not applied to the course development process or to student support services. No assessment of the cost of the library, the bookstore, the physical plant, or the benefits of the support staff is attached to the distance education courses. However, in the single mode institution, all costs are clearly assigned to distance education. As a result, economies of scale become economic realities for survival. It has been estimated that a minimum of 10,000 registrations is necessary to make a single mode institution viable, given the resources necessary for instructional design and the course team model (Verduin and Clark, 1991, p.56) whereas the dual mode university may function quite effectively with far fewer registrations.

In a dual mode institution, distance education may be conducted through individual faculties or through a centralized administrative unit. In most cases, the industrial-type requirements of distance education lead to its being centralized, permitting economies of scale. Just as no university exhibits a single organizational culture so are dual mode universities diverse and complex in their structures for distance education.

As most centralized units are solely administrative in nature,
dual mode institutions are often accused of haphazard program
development resulting from total academic control being vested in
the faculty. This control includes the setting of standards, content,
the choice of instructors, the establishment of prerequisites and final
decisions on which courses will or will not be developed. It affects
both the breadth and depth of programming and the consistency of
the development methods used. As well, since the majority of
courses are developed on an overload basis, the university is able to
ignore this work in questions relating to tenure and promotion.

There is often limited recognition of the different needs of adult
students in dual mode institutions, where policies relating to
admission, registration, course change and withdrawal, the
purchasing of texts and the borrowing of library resources are
normally established for the full-time on-campus student. Students
living several hundred miles away seldom set foot on the campus so
it is inconceivable that they would wait for a professor to return to
his or her office to sign forms. This inflexibility results in built-in
restrictions and leaves the centralized unit little chance to meet the
special needs of its student population. The unit has no ability to set
its own rules and operating procedures, has little decision-making
autonomy in areas like enrolment, administrative systems,
instruction, and territorial rights of services. Even more dangerous,
it has little power to adapt to changing circumstances, whatever they
may be. (Mugridge and Kaufman, 1986) In short, there is no
formal institutional commitment to either the development or the
delivery phase of distance education.

In these situations, distance education development may be done
almost exclusively by junior faculty members, as it is seen to be a
second-rate, low level job. (Verduin and Clark, 1991) Because it is
normally conducted as overload work, the perception that it is not
integral to the institution's primary purpose is strengthened. Faculty
members who are committed to distance education and adult students
are frequently poorly regarded and rewarded accordingly.

Since the distance education unit is often housed within
continuing education, which has historically been peripheral to the
institutional mission, it suffers from the same attachment to adult,
part-time students, despite all demographic evidence that suggests
that attention to this group is vital to the institution's survival and
the implication that this learning is qualitatively inferior. This
attitude of marginality is also consistent with the implications of the
collegial culture.

Since the collegial culture fosters independence and does not
encourage collaboration, course development in a dual mode
institution has had a difficult history. In many cases, courses were
simply a compilation of lecture notes, written by faculty members,
with no assistance from instructional designers or editors and no
review by peers. When attrition rates were high, distance education
was seen to be at fault and many early exercises became self-
fulfilling prophecies of failure and frustration. Or worse, the adult
students were blamed for their lack of commitment.

Within the dual mode institutions, communications technologies
have presented a special problem of such magnitude that it deserves
consideration here. In the traditional university, the classroom is the
primary site of learning. Distance education technologies allow
alternative instructional sites and so are often seen as a major threat. Technical, structural and attitudinal obstacles to the use of new technologies within the traditional university are apparent.

Technical obstacles are problems with the quality of the technology itself. Structural obstacles are problems with regulations or policies on the part of the institution or sometimes the government. Attitudinal obstacles on the part of students, faculty and administrators are the most difficult to address and the most dangerous. These include the same fears and concerns discussed above: fear of change, fear of technically complex devices, quality concerns, concerns about job security, concerns about the manner in which technologies may influence learning, a resistance to learning new things, the worry that students may not adapt, scepticism about the abilities of the technologies to deliver what they promise and a previous negative experience. All three types of obstacles are intimately connected, overlapping and to some extent causally related to each other. (Millard, 1991, p.211)

However, Grossman does offer some hope that even in a collegial culture technology may be acceptable:

An institution will be high quality to the extent that distance learning programs and technologically delivered instruction allow faculty...to achieve full realization of their professional responsibilities. To the extent that technology and distance learning compromises the professionalism and subverts the role of faculty, then no standard measure of quality will have any meaning. (Grossman, 1987, p.12)

Dual mode institutions, however, also bring certain strengths to distance education. Most obvious of these is the availability of a resident faculty, involved in research. The academic stimulation this coming together of scholars creates is normally missing from single mode universities.

Although some single mode distance education institutions have hired their own faculty, only in a dual mode institution such as Laurentian can a faculty member teach both in the classroom and at a distance. This means that in some cases, students will use the same materials and if these materials have been well-developed for distance delivery, the issue of standards is immediately solved. In dual mode institutions, students are able to move between distance education and classroom courses. This provides the student with maximum flexibility and allows scheduling or timetabling conflicts to be dealt with immediately.

For dual mode institutions, distance education has specific values. In smaller universities, distance education allows a broadening of the curriculum not otherwise possible. Using external experts, it adds to the resources of the university, with little direct cost. Through the course team development process, distance education can act as a professional development tool for faculty members who may never have had to consider the pedagogical implications of teaching and learning. Anecdotal evidence collected at Laurentian University suggests that faculty performance in the classroom may improve after the instructor has been through a course development process.

Distance education also allows smaller universities to continue
offering courses or additional sections when faculty are on leave, or when enrolment exceeds expectations. For example, if Introductory Psychology had a projected enrolment of 250 and 300 students appear, the additional 50 students may be enrolled in the distance education component of the course. Once the investment in development has been made, large numbers of students may be accommodated at little additional cost.

Distance education in the dual mode institution has some base requirements for success: the administrative unit must have some level of authority, even if it is not academic; the unit must have some level of autonomy to set its own procedures and policies; other units in the institution must be willing to cooperate; adequate numbers of well-trained staff and faculty must be available; and a sound funding base must be provided on a consistent basis, under control of the unit. These conditions will allow a distance education program to exist, but not necessarily to become congruent with the resident organizational culture.

IMPLICATIONS FOR REGIONAL UNIVERSITIES

The university spectrum is not nearly as simple as presented here. The "quality" of major research universities is seen as superior. The regional universities, which place a greater emphasis on teaching and learning, were created specifically to address educational inequity and simply cannot fulfill their mandates and still be seen to be "quality" institutions in the research definition. All universities, however, adopt the goals and measures appropriate to the few larger institutions with ample research funding. The traditional internal hierarchy of collegial values, the measures of academic respectability and the faculty reward system are surprisingly uniform throughout all institutions. For their own survival, regional universities must follow well-established traditions for their scholarly and instructional functions. In order to fulfill their mission, though, they must place as much value on the interpretation and dissemination of knowledge as on its creation, and equal weight on both the provision of opportunities for lifelong education and the instruction of the traditional student. If they are able to do this, they will span both collegial and developmental cultures and provide an environment which can effectively embrace distance education.

While universities may aspire to be similar, it is the uniqueness of individual institutions built into the higher education system that is one of its strengths. In fact, the question for institutional integrity and quality control is the direct relevance of the program, the service and the use of technology to institutional or system educational missions and objectives. Such missions and objectives obviously include specifications of instruction, research and community service. To the extent that the objectives are coherent and reinforce each other in institutional and system missions and the various technologies are effectively used to achieve these objectives, both integrity and quality are present. (Millard, 1991, p.228)
Laurentian, as a regional university, attempts to achieve both this integrity and quality in distance education.

LAURENTIAN UNIVERSITY

In the early 1960s the Ontario provincial government established several new universities, primarily to meet the needs of areas which did not yet have such institutions. In northern Ontario, with 90% of the province’s land mass and 10% of the population, two new universities were created. One of these was Laurentian University, a federation of three church-based universities and a new non-sectarian institution, with three affiliated university colleges, committed to bilingualism and service to northeastern Ontario.

A major preoccupation of this new university was institutional outreach. Professors regularly travelled great distances under the worst imaginable conditions of both roads and weather. Several of the centres served were not even accessible by road. During those first years, many young faculty with young families needed the extra income provided by this extension teaching. Many faculty were also committed to the concept of service. In the early 1970s, up to 40 different communities housed teaching centres, some over 1,000 kilometres away on the James Bay coastline. However, as the age of the faculty climbed, the cost of travel increased, and internal pressures to undertake research and publish grew, administrators began to understand that although community needs might continue to grow, the availability of resources, both human and financial, would not.

In 1972, therefore, Laurentian University introduced its first distance education course, the first telecourse ever offered by a Canadian university. Enrolment was high and distance education had arrived. It is worth noting that it arrived not with great support—senate minutes of the period reveal concern that faculty jobs might be lost and that standards would be low. In fact, had full-time enrolments not shown a significant drop that fall, it is unlikely that the 200 plus students enrolled in the program would have been accepted.

In its beginning years, the Laurentian program drew international interest, although still no internal support. The image of distance education at a university level had been bolstered by the success of the British Open University, and many meetings of Canadian continuing educators revealed a preoccupation with a national open university for Canada. Meanwhile, the weaknesses of dual mode distance education were becoming apparent.

By 1985, the Laurentian program still had about 50 courses with degree completion available in only 2 areas. Many courses were developed simply because a faculty member was available, with little thought of market demand. The amazing numbers of students who graduated with degrees in Religious Studies are not a testament to any higher level of religious interest but to the educational commitment of the adult students of northeastern Ontario. This was nearly the only way an adult living outside of the immediate Sudbury area could complete a degree.

Many of the early Senate regulations restricting access to
distance education courses by full-time students remained. Until 1987, full-time students were able to count only three distance education courses within their degree programs, a regulation which was likely intended to ensure that the quality of the in-person degree was not unduly tainted by distance education courses.

The course development process was non-existent. Course design was the province of individual faculty members, with no professional assistance by either designers or editors provided. Enrolments, once high in the early 1970s, had dropped back considerably. The program was simply administered by Continuing Education, with all academic responsibility resting with the departments, where support was sporadic. Consistency of regulation for both full and part-time students was considered the most important virtue, even though this often resulted in unfairness to the adult student living away from the university.

This is the situation most often described by writers considering the weaknesses of the dual mode system and there can be no question that even today this is the operational reality for many dual mode institutions. However, the traditional university also brings real strengths to the equation, especially if distance education can respect the nature and culture of that institution.

In 1985, the situation at Laurentian University began to change. Program planning for consistency and coherence became the criterion for course development. New standards, most taken from the single mode distance universities, were developed and approved for course creation, including the implementation of a course team model, adapted from that of the open universities to fit the needs of a dual mode institution. Course teams at Laurentian now include the content expert who is normally a faculty member at the university, plus two other reviewers, at least one of whom must be external, an instructional designer, an editor, a representative from the library and from instructional media and administrative management and support from continuing education. No courses are developed without the approval of the Director of Continuing Education who holds full budgetary authority for all development and revision. With the implementation of this new system, control for many aspects of the program was transferred from the academic units to the unit responsible for distance education. Importantly, academic control remains where it belongs, within the academic units themselves.

Old regulations that spoke to the second-class status of the distance education program were gradually rewritten, and now full-time students are able to take any number of distance education courses within their degrees. In fact, Laurentian allows full-time distance education study and, each year, at least ten students register this way. Student support services have been enhanced, especially in the area of academic counselling and support. Since both library and bookstore services were excellent, they have merely improved on their levels of service, with on-line computer access to the library and books now able to be purchased by credit card and distributed by courier. Academic tutoring remains the subject of a lively internal debate, as course supervisors share their experiences at end of term meetings. The Centre for Continuing Education is increasingly involved in, or supportive of, research which is related
to the program, whether it be in the area of attrition rates or the transmission of professional values via distance education.

Most significantly, from an academic perspective, involvement in distance education course development is now considered as scholarly work for purposes of promotion and tenure. Several faculty members have received merit increments because of their development of distance education courses, work which is often now done as part of regularly assigned workload and so is seen as part of the primary teaching activity.

In 1989, Laurentian’s efforts to improve the quality of instructional materials were recognized in a significant way. The British Columbia Open University suggested a complete course-sharing arrangement, whereby each institution would utilize the other’s materials at cost. This immediately increased the inventories of both institutions and Laurentian instituted a policy that no courses would be developed that had been written by the BCOU. To date, each institution has used the other’s courses and the collaboration agreement is moving into a second phase, with the institutions beginning to plan cooperative course revision and to consider cooperative course development.

This collaborative development is both course and program based, as the two universities have now worked for over a year on a joint distance MBA. Given the costs of course and program development, this strategy has obvious strengths. Perhaps not so obvious are the opportunities now available to both single and dual mode staff to share experiences, to develop other cooperative ventures and to learn from each other.

CONCLUSION

Obviously, both single and dual mode universities bring special strengths and weaknesses to the practice of distance education. It may be that future needs are best met by just the type of partnerships that Laurentian University and the British Columbia Open University are forging. As universities learn to work and learn together, everyone benefits. The traditions of the higher education community and the innovations of distance education are useful as points of departure to deal with the challenges of the twenty-first century.

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CHAPTER 6

THE OPEN UNIVERSITY OF BRITISH COLUMBIA, CANADA

Alan Davis

INTRODUCTION

In 1987, under an act of the provincial government of British Columbia, the Open Learning Agency (OLA) was formed, as a synthesis of the Open Learning Institute and the Knowledge Network (the province's educational television authority). OLA has three program units: the Knowledge Network (which delivers general education), the Open College (offering foundation and vocational studies) and the Open University (which offers degree programs). In addition, the Knowledge Network operations department provides broadcast television services for all public education institutions in the province. The current organizational structure of OLA is shown in Figure 1. Each Vice-President of a program unit has other OLA-wide responsibilities. Thus, the Vice President for the Open University has responsibility for the OLA's student support systems.

The organization of the Open University is given in Figure 2. Until recently, the program areas within the university were divided between two directors who reported directly to the vice-president. At present, recognizing the increasing collaboration with other institutions, one director (Administrative and Applied Studies) is responsible for the development of all collaborative degree programs, while the other (Academic Studies) is responsible for the development and delivery of all courses in the sciences, humanities and social sciences. The remaining professional academic staff comprise coordinators (for each of the program areas), instructional designers and tutors. In addition, there are 12 support staff members (graphic artists, copy editors, secretaries and administrative assistants). Considerable use is also made of independent contractors for course writing, academic consultation, course design and special projects.

Other important support functions such as registry, academic advising, financial services, public affairs, printing, audio and video production, computing and telecommunications are shared with the other programming units of OLA.

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Since 1989, the level of activity in the Open University has increased steadily. Enrolment and other statistics for the year April 1991 to March 1992 are given in Table 1. Not only are enrolments increasing (the 91/92 figure of 9,516 represents a 30 per cent increase in the 5 years since OLA was formed), there is also an increasing diversity in the way the university delivers its courses and programs through collaborative programs and applications of technology.

### Table 1

**Data on Open University Activities: April 1991 to March 1992**

**Enrolment**

<table>
<thead>
<tr>
<th>Total OU course enrolments</th>
<th>9,516</th>
<th>Overall completion rate 75.2%</th>
</tr>
</thead>
<tbody>
<tr>
<td>By program area:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities</td>
<td>1,698</td>
<td></td>
</tr>
<tr>
<td>Social Sciences</td>
<td>3,783</td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td>1,736</td>
<td></td>
</tr>
<tr>
<td>Administrative Studies</td>
<td>2,279</td>
<td></td>
</tr>
<tr>
<td>Consortium enrolment</td>
<td>2,090</td>
<td></td>
</tr>
</tbody>
</table>

*Open University students enrolled in distance education courses in other B.C. universities.*

**Student Profile**

- **Geographic location**
  - 56.6% metropolitan
  - 43.4% non-metropolitan
- **Age**
  - 54.6% under age of 30
  - 45.4% over age of 30
- **Male/female**
  - 31.3% male
  - 68.7% female
- **Academic goal**
  - 55.6% take courses for credit elsewhere
  - 17.0% take courses for career or personal advancement
  - 21.2% take courses for OU degree programs
  - 6.2% other
- **Graduates**
  - 71 (distance education programs)
  - 53 (collaborative degree programs)

**Courses**

<table>
<thead>
<tr>
<th>Number offered</th>
<th>126</th>
</tr>
</thead>
<tbody>
<tr>
<td>developed</td>
<td>15</td>
</tr>
<tr>
<td>revised</td>
<td>11</td>
</tr>
</tbody>
</table>

**Annual budget**

CAN $4.43 million (including estimates of all support functions)

The governance of OLA (and thus of the Open University) is unicameral. The OLA Board (with members appointed by the British Columbia provincial government) has the final responsibility for all academic and administrative matters. In practice, however, the academic matters in the Open University, including the development of new courses and programs, are directed by policies approved by the Open University Academic Council. This advisory body comprises the Open University academic staff and sixteen scholars from the other "traditional" British Columbia universities.
FIGURE 1

OLA Organizational Structure
May 1992

OLA Learners

Graduates
Undergraduates

Open University Programs

Career, Technical Students
Open College Programs

Adult Learners
Foundation Programs

ESL Students

Workers
Workplace Training

Study Groups
Self-directed Learners

K-12 Students
Schools, TV

General Education

OLA Services and Operations

Student Support Group
Registry
Warehouse & Distribution
Library
Access Services
(Academic advising)

Business Development Group
Marketing
Workplace Training Systems
Regional Centres
Print Shop

Technology Group
Broadcast Operations
Information Systems
Conferencing Networks
+audio +video +computer

Knowledge Network Management

Tutors
Vice-President
Open University
& Student Support

Tutors
Vice-President
Open College & Business Development

Vice-President
General Education, Technology & Television

Executive Director
Research & Planning

OLA President & CEO

Vice-President Administration
Human Resources
Facilities
Finance & Budgeting

Communications & Resource Management

OLA Board
FIGURE 2

Open University of B.C., 1992

OU Principal & V-P of OLA

Executive Assistant & Administrative Assistant

Director Administrative & Applied Programs

Co-ordinator Applied Studies

Co-ordinator Administrative Studies

Senior Tutor & Tutors

Administrative & Clerical Support Staff

Director Academic Studies

Co-ordinators

Science
Humanities
Social Sciences

Course Designers
Graphic Artists
Copy Editors

Senior Tutor & Tutors

* independent contractors for course writing, consulting, and course designing.
colleges and institutes.

The governance of the Open University is further complicated by the existence of the Open University Planning Council, which is required by legislation to oversee the development and implementation of university distance education throughout the province. All the public universities in British Columbia offer courses and programs at a distance, the Open University being the only single mode distance education institution. All the universities however, under the direction of the Planning Council, operate as a consortium, with the Open University acting as an administrative base. Each year, the Planning Council requests and receives a grant for the development of open learning materials, which is distributed to the universities (and, on occasion, colleges) on the basis of recommendations resulting from a collective approval process.

The close liaison between the distance education components of all the universities has existed, in one form or another, since 1984. The result is that there is a high degree of cooperation and efficiency in course and program development and delivery. For instance, all the distance education courses offered by the universities are listed in the Open University Calendar, and are thus accessible to students through the OLA Registry. The Planning Council ensures that duplication of course development is avoided and that all public post-secondary institutions in the province are kept fully aware of development plans in open learning. The terms of reference of the Academic and Planning Councils are given in Table 2.

The inter-institutional cooperation found in the activities of the Planning Council is even more evident in the degree of individual course and program articulation. The British Columbia Council on Admissions and Transfer is responsible for the publication of an annual Transfer Guide, which provides a comprehensive reference on how lower-level university-level courses taken at community colleges and institutions transfer for credit into degree programs offered at all the British Columbia universities. With degree completion opportunities being extended to the colleges, the transfer of senior-level courses will also need to be articulated.

The Open University is thus part of a post-secondary educational system that has a high degree of inter-institutional articulation and communication, which more often than not leads to cooperation, efficiency, and greater flexibility and choice for students.

**COURSE AND PROGRAM DEVELOPMENT**

Each subject area in which the Open University offers courses is reviewed annually by a committee of Open University and Academic Council members. The comments of tutors and results of student evaluation are brought forward to determine the need to revise existing courses and to develop new courses which will form the basis of a major or a minor in that subject area. The result is a revolving 3-year development plan for each subject area which is updated annually, and approved by the Academic Council. The
TABLE 2

A. Terms of Reference: Open University Academic Council

1. The Academic Council will:
   a. review new program proposals.
   b. review existing programs.
   c. review regulations related to Open University degrees, diplomas and certificates.
   d. approve candidates for degrees, diplomas and certificates.
   e. through the principal, recommend on above matters to the board and, when appropriate, to the Open University Planning Council.
   f. receive requests on program matters from the Open University Planning Council and take appropriate action on such requests.

2. In carrying out these terms of reference, the Academic Council will:
   a. establish rules for the conduct of its meetings.
   b. establish ad hoc and standing committees as appropriate.
   c. meet at least four times a year at the call of the chair or at the request of one third of the members.

3. Membership:
   a. Principal, Open University, as chairman.
   b. Directors, Open University.
   c. Program coordinators, Open University.
   d. Senior tutors, Open University.
   e. twelve external members, including at least three faculty members from each of the other three public universities in B.C.
   f. no more than four additional members.

Members in categories e and f will:
   i. be appointed ad personam and not as representatives of institutions or other agencies.
   ii. be appointed by the board on the recommendation of the principal.
   iii. be appointed for a renewable term of three years.
   iv. serve no more than three terms.

B. Terms of Reference: Open University Planning Council

1. The Open Learning Agency Act requires the establishment of an Open University Planning Council with membership defined in the regulations to the act as follows:

   The Open University Planning Council is established consisting of
   a. the chief operating officer of the Open University who shall act as chairman.
   b. two representatives from each of the public universities, appointed by the presidents of the public universities.
   c. two representatives of the college system, appointed by the college and institute principals.
   d. one student, who has been enrolled in a program, within the last 2 calendar years, offered by the Open University, appointed by the chairman, and
   e. three representatives from the Open Learning Agency, appointed by its president, one of whom shall be from the Knowledge Network and one of whom shall act as a non-voting secretary.

2. Terms of reference for the council are laid down in the regulations to the act as follows:

   The council established under subsection (1) shall assess Provincial requirements for university level open learning programs and shall recommend to the board:
   a. annual and long term program and fiscal plans including the appropriate level and allocation of grant funds for open learning, and
   b. program priorities to meet those requirements.
development plans include options for acquisitions and/or adaptation of courses from other institutions. The Open University has a variety of course-sharing agreements with other Canadian universities, and is a member of the International Universities Consortium, based at the University of Maryland University College. Through catalogues and course ware data banks, a thorough survey is made of existing courses that may provide an effective and economical alternative to the development of new courses. In addition, an appropriate mix of media and delivery technologies is incorporated into the plans.

A list of the current programs offered at a distance by the Open University is given in Table 3. On the basis of the annual discipline reviews, development priorities are established each year and used as basis for budget development and for expenditure plan allocation.

### TABLE 3

**Open University Degree Programs**

<table>
<thead>
<tr>
<th>DEGREE PROGRAM</th>
<th>MAJOR or MINOR SUBJECT AREAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor of General Studies</td>
<td>None</td>
</tr>
<tr>
<td>Bachelor of Administrative Studies</td>
<td>1. Business Management</td>
</tr>
<tr>
<td></td>
<td>2. Public Sector Management</td>
</tr>
<tr>
<td>Bachelor of Arts (General Program)</td>
<td>21 senior level credits in each of 2 areas (English, History, Psychology, Economics, Biology, Geography, Mathematics, Sociology)</td>
</tr>
<tr>
<td>Bachelor of Arts (Major Programs) (30 upper level credits in major subjects plus specific lower level prerequisites.)</td>
<td>Development plans approved for: English, History (History of Women), Psychology, Fine Art (Canadian Media Studies)</td>
</tr>
<tr>
<td>Bachelor of Arts (General Science)</td>
<td>21 senior level credits in each of 2 areas (Biology, Chemistry, Math, Physics, Science Policy)</td>
</tr>
</tbody>
</table>

All Open University degrees require successful completion of 120 credits, 45 at the upper level with a minimum GPA of 2.0 (60%) based on the upper level courses. The program must include a full year of first year English, and all but the Bachelor of General Studies degree have 15 or more specific requirements in lower level liberal arts and science courses.

Despite undertaking the careful planning described above, the Open University often finds itself involved in development that is unexpected. There are three main causes for this. First, insufficient funds are allocated for a development cycle that calls for revision of course ware each five years. Thus, the university is often faced with
the prospect of foregoing new course development for “crisis
revisions” of courses that desperately need updating. Second,
textbooks or other materials (acquired either commercially or
through course-sharing agreements) suddenly undergo edition
changes or are withdrawn. Buying large numbers of texts or
acquiring rights to duplicate others’ materials can reduce this
problem, but never entirely. Third, opportunities arise that would
be foolish to ignore. The development of materials for the French
language courses, for instance, was undertaken with funds made
available by the British Columbia government in response to the
need of school teachers in the province to refresh or upgrade their
skills in French, in preparation for curriculum changes. A
multi-media package “Decision Making and the Environment” was
jointly developed by the Open University and the Foundation for
International Training. The package serves the Foundation as a
workshop tool for professionals in international development and the
Open University as a unit of a senior level ecology course.

Collaborative course development has occurred on a more
systematic basis with the Emily Carr College of Art and Design
(ECCAD). Since 1985, the Open University and ECCAD have
undertaken the development of a program of introductory studies in
studio art and art history, offered entirely at a distance. The courses
are led by broadcast television programs, the development of which
has been time-consuming and expensive. The products, however
have been widely marketed, well-received and very successful.

In 1991, the Open University received special funds to develop a
series of health issues courses, in support of its collaborative
Bachelor of Health Science programs. Such courses rely on the
involvement of a facilitator together with a wide variety of experts
who interact, via audio teleconferencing, with groups of students.
The course packages for such courses are less integrated than those
for individual learners: a slim course manual, assigned readings and
an assignment file.

Course development at the Open University is undertaken
through a “project team” approach. A scheme, developed for OLA as
a whole, to show the full development cycle is given in Figure 3. In
phase 4, the team comprises a course writer (normally a content
expert from a British Columbia college or university), a course
consultant (usually a more senior scholar from another institution), a
course designer, graphic artist, copy editor, media specialists (where
applicable) and the program coordinator, who acts as project
manager. The team may vary in size and complexity depending on
the nature of the project, but the intention is to ensure continuing
communication and collaboration between content and design
specialists so that the chances are maximized of a course being
developed which is of highest academic quality and which takes full
advantage of media and design options to assist and guide the
learner.

The Open Learning Agency provides training and professional
development opportunities to staff to acquire new skills in design,
pedagogy, and project management.
FIGURE 3

OLA PROJECT DEVELOPMENT MODEL

* Project revision enters process at the appropriate phase
THE BRITISH COLUMBIA EDUCATIONAL CREDIT BANK

As previously noted, the programs listed in Table 3 are the degrees that the Open University aspires to offer by distance or open learning. The ability of students to complete the degree requirements is greatly increased, however, by the liberal transfer credit policies of the university which have been established under the mandate provided by the British Columbia Education Credit Bank. The Credit Bank was established under the same legislation as OLA, to allow for the assessment of formal and non-formal learning for transfer credit to OLA programs.

Thus, for the Open University degree programs listed in Table 3, the requirements can be met by transferring course credits from any accredited college, institute or university. The definition of "accredited" is given in the Open University policies, but is widely encompassing. The only residency requirement is that the student take at least 6 senior level credits of courses listed in the Open University calendar.

Special transfer credit arrangements are also permissible under Open University policies. For example, students who have successfully completed a nursing diploma may receive a block of credits which may be applied towards certain degree programs; graduates of 2-year technology diploma programs receive a 60 credit block transfer towards an appropriate degree; Canadian military college credentials are treated same as university courses.

COLLABORATIVE DEGREE PROGRAMS

The Credit Bank also provides the essential mechanism in the design of joint degree programs, offered by the Open University in collaboration with other post-secondary institutes in British Columbia.

The development of such programs is undertaken using procedures approved by the Open University Academic Council, and typically involves the following steps.

1. The initial idea for a new degree program is discussed, and a short statement of its objectives, structure and needed resources is submitted to the Open University Principal. With his approval, further development is undertaken, with the advice of the Academic Council.

2. A full proposal is developed containing the results of needs assessments, the program’s objectives, student interest, program structure, course outlines, facilities, human and financial resources, comparisons with other similar programs, and other implications for both institutions.

3. A working group, comprising Open University staff, Academic Council members, and external consultants reviews the proposal, and recommends on its future to the Academic Council. The Council then forwards its own recommendations to the OLA Board.
4. The proposal is also circulated to other British Columbia universities and colleges for their comments and to the Open University Planning Council for its information.

The resulting programs (examples of which are listed in Table 4), cover a wide variety of largely applied subject areas, but share some similar features:

(a) they ‘ladder’ upon existing and successful career-oriented diploma programs.

(b) the degree completion requirements for diploma holders include a range of general education (liberal arts and science) courses as well as advanced work in the program’s specialty.

(c) the implementation of the program requires continuing liaison with the Open University, the Academic Council and external specialists from other universities, business or government as required.

(d) in terms of course development and delivery, the Open University’s role is minimal, except for the provision of some general education offerings and some specific capstone courses e.g. Health Issues, in the Bachelor of Health Science degrees.

(e) the intent of the programs is to allow diploma holders, who have often been employed for a number of years, an opportunity to change their careers through advancement into supervisory or management positions (which more frequently require a degree) or through further study at graduate school.

COURSE DELIVERY

The vast majority of Open University learners study alone at home, relying almost exclusively on regular mail delivery of course materials and on a tutor who is accessible by phone at stated times during the week.

A student may register in a course at any time during the year, and normally receives a course package and a welcoming letter from the tutor within a few days. The tutor makes an introductory call to the student and arrange a suitable time for the student to call on a regular basis. In practice, the extent to which students call their tutors varies widely. The tutor is also responsible for marking assignments and provides written feedback on the work submitted.

Approximately twice a year, tutors and courses are evaluated by means of a questionnaire which is mailed to students who have applied to take final exams.

Nearly all Open University courses have comprehensive final examinations. Students may opt to take the final examination at two or four months if they complete their course within this time. They are given six months to complete a course and to apply to write the exam, but they are also entitled to apply for course extensions, with additional fees waived for exceptional circumstances. Examinations
TABLE 4
Examples of Open University Collaborative Degree Programs

<table>
<thead>
<tr>
<th>DEGREE PROGRAM</th>
<th>COLLABORATING INSTITUTION</th>
<th>PROGRAM STRUCTURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor of Fine Art</td>
<td>Emily Carr College of Art &amp; Design,</td>
<td>Graduates of the college's 4-year diploma programs can complete the degree</td>
</tr>
<tr>
<td></td>
<td>Vancouver</td>
<td>requirements with Lower Level academic courses offered by the OU.</td>
</tr>
<tr>
<td>Bachelor of Design</td>
<td>Emily Carr College of Art &amp; Design,</td>
<td>Graduates require 2 years of university liberal arts and music plus a 2-year</td>
</tr>
<tr>
<td></td>
<td>Vancouver</td>
<td>diploma in Music Therapy.</td>
</tr>
<tr>
<td>Bachelor of Music Therapy</td>
<td>Capilano College, North Vancouver</td>
<td>Degree requirements are a 2-year diploma in Nursing, 1-year advanced diploma in</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a nursing specialty, one year of liberal arts studies.</td>
</tr>
<tr>
<td>Bachelor of Health Science (Nursing)</td>
<td>British Columbia Institute of Technology, Burnaby</td>
<td>Graduates have 2-year diploma in Computer Systems Technology, 1-year diploma in Advanced Software development and one year of specified liberal arts.</td>
</tr>
<tr>
<td>Bachelor of Technology (Computer Systems)</td>
<td>British Columbia Institute of Technology, Burnaby</td>
<td></td>
</tr>
</tbody>
</table>

are held at approximately 50 different sites throughout the province every 2 months.

A separate examinations department is responsible for establishing and staffing these sites, and for ensuring that all the appropriate exams arrive at each site for each exam session. The Open University is responsible for preparing several alternative final exams for each course, and Open University tutors are contracted to mark the exams, but the examinations department ensures the security of the system.

A student information management system, operated by the OLA Registry, keeps track of each assignment and examination mark. A grade is calculated automatically by this system, but is subject to validation by Open University staff.

Tutors of home based learners are paid according to a formula which depends on the number of students and the number of assignments marked. Tutors, through their program coordinator, provide continuing, useful feedback on courses (errors, improvements etc.) and on students' concerns.

On-site group tutorials are also provided for students enrolled in collaborative degree programs and at learning centres established throughout the province by Native Indian bands or community colleges. Tutors are hired by OLA, or by the collaborating institution with OLA approval, and are paid a fee for leading the
tutorials and marking assignments and exams. Students pay the same fees as home based learners, and receive the same course ware. How the course ware is adapted for group tutorial use is at the discretion of the tutor, in consultation with the program coordinator. As indicated earlier, audio-teleconference group tutorials are also used for students enrolled in the same program. Negotiations are underway with the newly formed University of Northern British Columbia to jointly deliver (by teleconference) existing Open University senior level courses, and new courses which focus on northern issues, to remote areas of British Columbia. In some cases tutors will be used to both deliver the course and at the same time develop a package for subsequent independent or group studying.

ISSUES FACING THE OPEN UNIVERSITY

A number of key issues have emerged for the Open University at this point in its history, which reflect on both its strengths and its weaknesses. In some respects, the issues relate to the period of transition which the university is undergoing, having implemented its basic distance education system with reasonable success, but now having to deal with the impacts of technology, the move to collaborative partnerships, and paradigm shifts taking place in education at every level. The OLA environmental scan (Bates, 1991), for instance, reached the following conclusions regarding the work-force needs of the British Columbia economy in the next 5 years:

1. The role of the Canadian federal government in education and training will increase through directly funded programs, with a concomitant decrease in transfer of funds to the province of British Columbia, the source of OLA’s base funding.

2. Work in British Columbia is changing from manufacturing to services, from resource-based to knowledge-based, from full-time to part-time.

3. To be competitive economically, Canadian business and industry need a more highly skilled work-force, which can only be achieved by concentrating on adult learners already in the work-force.

4. Post-secondary institutions are under increasing pressure to become more efficient, accountable and flexible.

5. OLA’s main objective, through its links with provincial and federal governments, will be to focus policy makers on the central role that open and distance learning can play in improving economic competitiveness.

TECHNOLOGY

While the development of electronic communications technology has been remarkable in recent years, its application to education has been inconsistent. While there are individual projects which have
had notable success, there is a lack of universal standards for interconnectability. In addition, the absence in British Columbia, at least, of coherent policy and direction for electronic networks for any purpose, means that education has yet to reap the kinds of benefits that technology has provided in, for instance, the military, business and entertainment fields.

The most likely areas of development for the Open University will be where existing telephone systems can be used to transmit audio, video and data through computer and/or audio and video conferencing. Even then, the impact on students and tutors in terms of requiring them to obtain access to the necessary hardware, will be significant. The Open University, for its part, will need to develop courses in a way that maximizes the benefits of the new technologies. OLA's level of commitment to staff development, and its ability to balance academic and administrative demands will be as important as technology resources to the success of this change.

The integration of content and form to take full advantage of technology and to maintain high academic standards with sound pedagogy is extremely difficult. This has been a challenge in every traditional classroom environment, and in Canadian universities at least, a challenge that is mostly not met (Smith, 1991). For example, the situation of the Open University within OLA which has full television production and broadcast facilities would suggest that the production of video materials as part of mixed media course packages would be straightforward. In practice, however, the use of video is limited by cost which is largely driven by the need to hire staff who can negotiate the academic requirements of content specialists with the technical and design standards of the media. Thus, for instance, the recording of a simple laboratory demonstration would appear, from the point of view of the educator trying to convey some understanding and knowledge to the student, to be straightforward exercise. The video producer, however, requires a script (which will be edited), specially-prepared graphics, a host of technicians, most of a day in the studio, and so on. The negotiation involves encouraging the content specialist to be open to the knowledge and advice of the media expert, and for the latter to recognize that, from the student's point of view, a lot of time and money will be wasted on technical perfection.

Similar difficulties occur in all content/media interfaces, and can be solved to some extent by appropriate training and practice in project management, and in continuing professional development for design staff. In the Open University, the project management process gives the final decision on use of technology to the program coordinator. A recent minor organizational move in OLA placed some technical people within the university, reporting directly to the director of Academic Studies. This has simplified and improved working relationships enormously, and is recommended as an approach for all technologies.

**STUDENT SUPPORT**

The centralized student information management system described earlier was custom-designed to integrate registration.
grading, examinations, assignment to tutors, tutor payroll, materials distribution and a variety of other administrative processes related to the distance delivery of courses. In many respects, it has accomplished this task, but only after considerable expenditures on software development and refinement. The advantages of an integrated system include the ability to extract data for measuring student success, costs of instruction, budget development, enrollment projections, materials management, etc. The disadvantage is the difficulty of adapting the system to meet changing needs. With more activity occurring in learning centres throughout the province and special sections of courses being set up for group tutorial delivery, the centralized system has to be bypassed, and its processes undertaken manually. The implication for any new organization is not to establish an information management system that cannot be easily upgraded or adapted. The increased power and flexibility of networked microcomputers clearly provides more options.

HUMAN RESOURCES

All distance education institutions face the issues raised by not having, for want of a better term, a "campus life." The lack of a formal or informal community of learning and social interaction that is apparent to varying degrees in traditional universities is often cited as a major disadvantage of distance education. The Open University has had reasonable success in promoting tutor interaction, through program area meetings, convocation ceremonies and an annual tutor workshop, but has not been successful in promoting or facilitating student activities through either print or electronic networks. The newer collaborative degree programs come complete with existing student bodies, and may help to inspire the same for home based learners. For a new institution, the parallel establishment of such options as a student society, ombudsperson or newsletter is strongly encouraged.

Like many distance education institutions, the success of Open University graduates to date has been based on those students who were self-directed, independent learners who could probably succeed in any enterprise, given the opportunity. An overall completion rate of those students who begin their courses (i.e., complete at least one assignment) of 75.2 per cent suggests that maintaining or improving this rate is a goal for the future. Research has shown (Paul, 1990) that the single most important factors in student incompletion are the lack of preparedness for the rigours of distance learning and an inability to cope as independent learners.

Making students aware of the challenge of distance learning, building their self-confidence through appropriate courseware, active tutoring and facilitating student contacts with each other are among the strategies that should be considered. Clear goals for completion and persistence rates should be set, and data and opinions collected regularly on student satisfaction and achievement.

Almost all faculty and administrators of distance education institutions are products of a traditional system. While many educational concerns are common to both systems, and there is some experience in tutoring among Open University personnel, there is
little intuitive understanding of the distance learner. The comments of students, collected directly or passed on by their tutors, can assist staff greatly in improving courses and processes. The distance education community itself--provincially, nationally, and internationally--also provides many opportunities for the sharing of data, ideas and concerns. OLA is currently investigating options for postgraduate training in distance education, and such programs may help provide a better definition of this "profession". Again, it is probably an activity that should be incorporated early in the development of an institution, with the following provision.

Discussion of the "how" in distance education is important, and something that distance educators seem to find easy to do quite regularly. The disadvantage of this is that it promotes the view of distance education as marginalized in relation to the rest of the system. The Open University has encouraged staff to also maintain interest and activity in their subject area specialties through professional societies, research and teaching. Presenting distance education as an integral part of any discipline's scope of activities is vital.

The use of off-site tutors, who are contracted annually and paid per assignment or student, and the contracting of all content specialization to external scholars allows the university enormous flexibility in its operation.

ACCEPTABILITY OF DEGREES

Being relatively new and small, the Open University is accustomed to providing additional information on its programs and processes to other institutions so that Open University degrees are recognized as meeting one of the requirements for postgraduate studies. The general rule is: the more other institutions know and understand, the greater the chances of Open University graduates being accepted. The inclusion of 16 external members on the Academic Council has provided useful advice in the development of programs, and supportive links to the traditional system. Issues still arise however, largely related to the Credit Bank. The accrediting body for teachers in British Columbia, for instance, has difficulty accepting the awarding of transfer credit for senior level courses that the Open University does not itself offer, despite the thorough process used to establish the transferability. The art history courses offered at Emily Carr College of Art and Design, for example, which transfer to the Open University's Bachelor of Fine Art degree, have not to date, been accepted. The recognition of these courses as being "university, senior level" depends on their acceptability to a traditional university which offers its own similar courses. Clearly, if this criterion is maintained, the Open University will need to either revise its policies and procedures related to transfer credit, or continue to challenge the traditional system to adopt a more flexible and open attitude towards learning.
GROWTH AND FUNDING

The high costs associated with establishing centralized information, registration and distribution systems, and with course development are well-recognized. Once established, these systems are capable of expanding (or contracting) quite easily, but with some limitations. The steady growth of enrolments and the ageing of courseware are two areas in particular where the gap between the needed and the available maintenance resources has slowly widened. The problem with incrementally approaching a point of collapse is that it is much harder to argue, both internally and externally, for the necessary additional resources. A course with fifty enrolments appears to require essentially the same structures and processes as one with five hundred enrolments, with the additional tuition fees covering the additional tutor costs and minor expansions in administration. The Open University has found that the diversification and expansion not only of enrolments, but also transfer credit requests, extensions, library services, special arrangements for group tutorials and teleconferencing, have created chronic, rather than acute, stress on the administrative structure, particularly in the student support functions. As previously indicated, at a time when the Open University wishes to address the basic needs of distance learners through expanded support, maintaining the status quo is increasingly difficult. The implication for other institutions is that very clear values regarding the educational service to be offered to learners need to be established, and constantly referred to when difficult decisions need to be made. Because distance education administrators are far removed from students, such values can be easily lost.

For course development, the continual revision of courseware is of increasing concern. Some strategies have been implemented to help offset the problem: making good use of advances in desk-top publishing and in “on-demand” printing from electronically-stored masters; incorporating design features that allow for easy adaptation to new textbook editions; increasing the use of tutors to interact directly with groups of students with less structured course materials—a brief course manual and assorted readings.

The strength of the Open University's course development—the production of high quality courseware which has been subject to scrutiny by academics, educators and designers, is also one of its weaknesses, since the revision of such materials is complicated and expensive. It will be a major challenge in the future to both preserve the quality of courseware and to allow frequent and cost-effective revisions.

CONCLUSION

In the 1991-94 OLA strategic plan, among the listed beliefs and values, are the following:

We are committed to providing the highest quality instructional and support services to our learners.
Our operations are characterized by course delivery tailored to the needs of learners, and easy and open
access to flexible, high quality and efficient services for both learners and partners.

The issues presently faced by the Open University have arisen to a large extent from a failure to live by these values. In the rapidly changing environment that it finds itself in, this is not surprising. Dealing with unexpected external forces and coping with the internal tensions as part of a larger organization which has widely disparate objectives easily diverts educators from their fundamental purposes. It is ironic that, for a university that aspires to flexibility in program development and delivery, it is the inflexibility in some of its systems that is a weakness. Developing and maintaining programs and courses of the highest standards, delivering them in ways that accommodate the needs of learners, being innovative and yet still an accepted part of a larger, more traditional system is well within the capability of the university as part of OLA. With the relatively abundant resources and opportunities in British Columbia, it should also be able to take risks from which others can learn.

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CHAPTER 7

DUAL MODE INSTITUTIONS:
THE OFF-CAMPUS CENTRE OF UNIVERSITI
SAINS MALAYSIA

G. Dhanarajan

INTRODUCTION

The Universiti Sains Malaysia (USM) is unique among the seven Malaysian universities in that it is the only one in the country authorized to deliver a distance education program to home based adult students. There are no distance education programs in the school sector in Malaysia, nor are there any vocational or career-oriented distance education programs. USM is also unique among the distance teaching institutes (DTI) of the ASEAN (Association of South East Asian Nations) region in that it is one of the very few conventional dual mode universities having such a program.

Its monopoly in Malaysia is a result of a government directive precluding the other six universities from operating similar facilities. Such decisions are arrived at after considerable discussion with the universities in order to maximize the returns from the limited financial, human and other infrastructural investments of a small country.

The program was launched in 1971 and continued on an experimental basis until 1982 when it became a regular activity of the university, thereby giving it permanence and the status of an established faculty. In its 21 years of existence the program has changed structurally and academically. Today it is poised to play an even greater role in Malaysia’s attempts to bring higher education to its diverse population.

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* A modified and updated version of a case study conducted in 1985 and reported to the Asian Development Bank, Manila, Philippines.
TERTIARY EDUCATION

One of Malaysia's seven universities has its antecedents before independence and the other six after. Four of the universities are multi-campus and between them they had an enrolment in excess of 70,000 students in 1991. This figure includes students pursuing degree (54.1 per cent), diploma (36.1 per cent) and certificate (9.8 per cent) courses. In addition, about 5,280 students were enrolled in matriculation programs in the universities. In 1986 about 8,600 students were admitted into the universities out of about 50,000 applicants. This shortfall in opportunities is not new and has been the primary reason for the movement of Malaysian students overseas. In 1991 it was estimated rather conservatively that about 60,000 Malaysians were studying overseas in degree and diploma courses. Another 35,000 are expected to go abroad in 1992.

THE OFF-CAMPUS ACADEMIC PROGRAM OF USM

In 1969 when USM was set up the founders included the following as one of the main recommendations for the new university:

... it was recommended that the new university should have the power to grant external degrees. We agreed and recommended this accordingly. We understand that the University of Malaya has this power, but has not so far exercised (it) on the grounds that it lacks the facilities. Our draft constitution leaves it to the authorities of the University of Penang (the original name of USM) when to exercise its power to grant external degrees.

The university from its inception took the above recommendation seriously; the first Vice-Chancellor and his Academic Planning Board declared, in 1971, the establishment of their Unit for Off-Campus Studies with the following statement:

... The off-campus education programme is a constitutional commitment to enable both the university to benefit itself as well as the society that sustains its educational enterprise. It is to cater for the many Malaysians who, for one reason or another, do not get as much of it (education) as they can turn to advantage of as they discover, sometimes too late, that they need. It is meant primarily for adult students in full time employment or working in the home, the program functions to balance the inequalities of opportunity that exists between working men and full time university students.

The new unit, which was part of the Centre for Educational Studies, was given a mandate with several objectives. These were:

1. To help those adults who had earlier missed the opportunity to obtain a higher education and thus to qualify for a degree;
2. To narrow the gap of educational objectives among
the various ethnic groups in the country;
3. To take education to economically deprived and geographically isolated areas;
4. To increase the nation's (supply of) high level manpower;
5. To improve the performance of those already in employment by updating their knowledge and skills.

To these formative aims the senate of the university added the following objectives which were meant to safeguard the standards and credibility of the university's credits offered through the off-campus program:
1. To provide a diversified program of studies to enable the off-campus students to obtain a standard of academic excellence similar to that required of on-campus students;
2. To devise new approaches to teaching and learning that can overcome partially or fully the problems of distance between the place of residence on the one hand and the place of instruction on the other;
3. To organize annually a three-week residential school to:
   (a) enable students to meet with their instructors and their peers; and
   (b) to supplement independent learning with face-to-face instruction.

To further safeguard itself from unknown difficulties the university declared the program to be an experimental one from the start (so that it could be terminated without too much legal exposure should serious problems develop). This, however, meant that the university could not provide or commit a lot of resources to this innovation. Thus, growth of the program was rather slow during the first decade. It was only in 1981 after graduating 700 students and two rigorous external evaluations that the program was able to receive full university and government endorsement.

At its launch, the university offered courses in the humanities and social sciences. However, by 1973, due to pressure (especially from the Ministry of Education) courses in the natural sciences and mathematics were also included in the program. During much of this period the academic year was organized on the basis of three terms with annual examinations at the end of the academic year. To further maintain the high quality of the USM degree, off-campus students were expected to spend a compulsory residential year. Since then, while still maintaining all of the safeguards to protect the program's respectability and the university's standards, structural changes have been introduced to include characteristics that make distance education organizationally efficient and academically sound. Following evaluation by a university and Ministry of Education team the unit was upgraded in 1981 to a Centre with both academic and administrative responsibilities. This allowed it to employ academic staff (both educational and content specialist), design curriculum, manage course creation, development, delivery and support. It does not allow the Centre to award degrees. What the Centre does in practice is to help off-campus students acquire up to 90 credits in the distance education mode, thereby providing them with access to
one year of full time study at USM on campus for 30 more credit units and graduation. Students are now expected to spend a minimum of five years off campus and one year on campus.

Unlike the other distance learning systems of Southeast Asia, USM's program is run by a conventional university and therefore not surprisingly it imposes all the traditional academic entry qualifications on prospective students.

However, because the university's major objective was to provide an opportunity to men and women in employment, certain non-academic criteria were also imposed for admission. These include:

(a) All applicants except those coming into the Science Foundation Program should be above 21.
(b) Candidates from the public services should be tenured,
(c) Candidates should have a written consent from their employers to attend the residential school's final on-campus year and examinations.

To meet the third objective of the program, especially in the science streams, students belonging to the Malay race are accorded special consideration. They are given opportunities to follow a special preparatory program called the Science Foundation Program and entry into it carries a lower age limit and requires no more than a good pass in the Secondary School Examination. In the early years approximately 500-600 students were offered admission into the off-campus program each year (recently this has gone up slightly).

Being tied to a conventional university and its graduation requirements, the program's academic structure has to conform to the many regulations governing graduation. The three degrees offered are patterned after traditional full-time Commonwealth structures. Students are expected to carry a workload of 4,000 or more hours, normally spread over four full-time years. The 4,000 hours are fragmented into 120 credit units offered over eight semesters. Off-campus students are not full-time students and the university therefore presumes that it may not be possible for them to acquire the necessary graduating credit units in the normal eight semesters so the academic program is structured as follows:

(a) The students will be expected to acquire 75 per cent or 90 credit units in the off-campus mode and the remaining 25 per cent in a final full-time residential year where they will follow higher level courses.

(b) In the off-campus mode students are expected to take a minimum of five (stages) academic years (up to a maximum of ten) to acquire the 90 credit units. This works out to about 18 credit units a year.

(c) Each academic year for the off-campus student takes 35 weeks of which three are spent in residence at the University (The Intensive Course). An on-campus student on the other hand carries the same load in a semester lasting 15 weeks.

(d) Students have a choice of majoring in Science and Mathematics (BSc with Honours), or Humanities (BA with Honours), or Social Sciences (B.Soc.Sci. with Honours). They are also allowed to cross
minor in any of the three areas provided they satisfy the necessary prerequisites. In 1990 students were spread among the three programs as follows:

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>First Degree</td>
<td>2,847</td>
</tr>
<tr>
<td>Continuing Education</td>
<td>180</td>
</tr>
<tr>
<td>Foundation Science</td>
<td>126</td>
</tr>
</tbody>
</table>

THE COURSES

The university decided that the courses offered in the off-campus mode should be similar to those offered in the on-campus mode, at least as far as content was concerned. USM required that course delivery should be appropriate to the needs of home-based learners but, even so, the university in its transcripts and other official documents deliberately does not distinguish those graduating through the off- or on-campus mode.

In 1971, when the program started, only eight courses were offered in the off-campus mode. By 1990, 125 courses leading to 12 distinct awards were made available to off-campus students throughout Malaysia. The courses cover the following disciplines:

<table>
<thead>
<tr>
<th>Humanities</th>
<th>Sciences</th>
<th>Social Sciences</th>
</tr>
</thead>
<tbody>
<tr>
<td>History</td>
<td>Physics</td>
<td>Economics</td>
</tr>
<tr>
<td>Geography</td>
<td>Chemistry</td>
<td>Sociology &amp;</td>
</tr>
<tr>
<td>Literature</td>
<td>Biology</td>
<td>Anthropology</td>
</tr>
<tr>
<td></td>
<td>Mathematics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Statistics</td>
<td>Political Science</td>
</tr>
</tbody>
</table>

Like any other organization involved in distance education, the creative act of teaching is divided among different persons. At USM teaching is performed by:

(a) A lecturer or team of lecturers from the Centre of Off-Campus Studies or from any of the other faculties of the university who both conceptualize and create the printed material as well as occasional supplementary material using other media. In these tasks the teacher can use instructional design and other (editorial) expertise located in the Centre. Technical and design expertise is also available from the Centre for Educational Technology of the university.

(b) A lecturer or lecturers who manage the course when it is delivered to the students. These individuals are responsible for preparing the assignments and examinations, and the conduct of the annual intensive (residential) courses. Course managers are often, but not necessarily, the same individuals who created the courses.

(c) The regional tutors who meet with the students in the many study centres throughout the academic year.

All of these teachers are expected to work together towards a common instructional goal even though their individual efforts are
separately created or performed. It is therefore essential that a carefully devised plan be prepared for course development with complete awareness of each person's responsibilities. This process is complex and follows a series of carefully defined steps:

1. Planning
2. Development
3. Production
4. Evaluation
5. Revision

The Centre's course production system has changed over the years from the simple typed-stencilled-mimeo-graphed-stapled route of the early seventies to the electronic-based system of today. Course production activity starts at the early stages of course development and uses a system developed with the help of the Open Learning Institute of British Columbia, Canada, with financial assistance from the Canadian International Development Agency.

THE MEDIA

It was very clear to USM from 1971 that its small numbers and the relative inexperience of its staff could not justify the use of public broadcast media in the delivery of course ware. However, as educators all over the world became more and more aware of the needs of home-based learners, it also became evident that diversification of media was a pedagogic necessity. Consequently, following the program's review, policy decisions were made to incorporate at least a 30 per cent non-print media component into all course ware. This included the use of 30 minutes a week of radio air time given free to USM by Radio Malaysia. Currently the following non-print media methods are being used by the off-campus centres:

(a) Radio: This is a half-hour facility given to USM at no cost by Radio Malaysia. The program broadcasts counselling information (especially during examination periods) as well as administrative details and course information, especially in the lower levels where student numbers are relatively high.

(b) Audio cassettes: A number of the science programs and a few non-science programs have audio cassette components. These are given free to students as part of their course ware. The cassettes either stand alone or form part of an audio-graphic sequence. They serve to lead students through difficult abstract and conceptual problems, descriptions of processes, interviews and live tutorial discussions.

(c) Video cassettes: This medium offers exciting possibilities - but it also carries the responsibility of proper use. There is gradual experimentation with this medium but there is little possibility of it becoming widely considered by the academic community.

Though there is widespread discussion among the administrators of the Centre about using other communication technologies like
telephone tutoring, video texts and teleconferencing, cost considerations and a desire to use technologies sensibly act as deterrents to their rapid implementation. Recently the Centre has experimented with audio-conferencing and tele-tutoring in some courses with reasonable success. The Centre has not, however, reached the 30 per cent policy target.

All USM non-print media material is created and produced in the university which has excellent, almost broadcast quality, studio facilities for audio and video production. Through intra-university contractual obligations, the Centre for Educational Technology (CET) carries out all the production. The producers, technicians and facilities belong to the CET. The academic and instructional design aspects of media programs come from the off-campus Centre. The two centres have cooperated to produce all of the media needs of the university. While radio programs reach acceptable broadcast quality, the other media elements can still be improved.

THE DELIVERY SYSTEM

Courses in the off-campus program are delivered in a variety of forms. As a mixed mode institution, the university has a large pool of talented academic staff to draw on. Modes of delivery include:

(a) Print: This is the principal teaching medium. The course content is presented in an interactive text, following two styles, often mixing both. In one, a comprehensive study guide is written around a recognized textbook or book of readings. In the second, especially in science and mathematics courses, comprehensive interactive texts are created which include all the necessary course content. This is so because of a lack of good textbooks in Bahasa Malaysia (the Malay language) which is the medium of instruction in all Malaysian universities. The production of science books in the national language is one of the valuable spin-offs of the off-campus program.

(b) Radio: This medium is used weekly for counselling and general information purposes. Research at USM shows that radio is unreliable as a teaching tool in the off-campus program mainly because programs are frequently postponed and cancelled by the broadcasting organization. Students soon learn not to rely on published timetables. Since, in fairness, missing radio programs should not expose students to examination difficulties, enrichment becomes the major contribution of this medium.

(c) Cassettes: This medium is used for direct teaching, comprehension and review. Cassettes are supplied along with other materials to all students.

(d) Interpersonal: Dual mode institutions have a distinct advantage in the availability of human academic talent. USM uses this resource to great advantage.
The annual three-week residential school provides unlimited access for students to consult course writers, course managers and other academics. One cannot help but believe that the greatest amount of teaching/learning takes place at this time. During the rest of the year, the university makes available regionally-based part-time tutors, especially for the science and mathematics courses. These tutors, often graduate high school teachers, are regularly trained for their jobs by the university.

SUPPORT SYSTEMS

From the beginning, the university was unequivocally determined to provide a high quality off-campus education comparable to its on-campus program. This meant providing a support system that would ameliorate as many of the disadvantages of self-study as possible. In order to achieve this goal, the university made use of the excellent high schools and teacher-training colleges spread throughout Malaysia. These physical facilities were needed to provide space for laboratory exercises, tutorial classes, library resources and examinations. Subject tutors, counsellors and study centre administrators were put in place by USM to make these facilities work well for the students.

Today there are 13 study centres spread throughout the country and no student has to travel more than 90 km to reach one. These centres are used as venues for:

(a) orientation meetings. New and continuing students meet at the start of each academic year to plan their programs with the help of the university's administrators.

(b) tutorials. Between July and the following March of every academic year tutorial sessions are held each weekend for one subject or another. Students registered for courses which include these tutorials are expected to attend.

(c) laboratory classes. USM is unique among distance teaching institutions in that, from its very early days, it delivered high level science courses. To provide the necessary facilities for practical work, laboratory classes were organized in the study centres. Part-time tutors/demonstrators conducted these classes and the university provided the necessary equipment and supplies. Practical classes are conducted for about 32 science courses involving a total of 600 hours per academic year per centre.

(d) housing reference material. Set textbooks, reference books, photocopies of journal articles, reports, past examination papers and non-print media material are all made available for students and part-time staff.

(e) meeting visiting lecturers. Academic staff from the campus occasionally visit to handle especially
difficult topics.

(f) assessment. Students take their regular term tests and final exams in the familiar surroundings of their regular study centres.

(g) social gathering and self-help study groups. The first is a regular occurrence but the second has not really become a popular activity.

STUDY CENTRES

Through experience the Centre has found that it has to be proactive in order to popularize the use of the study centres. Students using these facilities regularly are often found to be the ones who do well in their courses and remain in the system until completion. Active promotion of study centres take the form of regularly organized tutorials, peer group meetings, library and counselling sessions. Students see and use study centres for academically-oriented activities, rather than for social and other functions. Based on student course load data collected some time ago, someone who registers for a maximum of 18 to 20 science credit units may spend up to 240 hours in an academic year at the study centre, about 7.5 hours a week for the 32 weeks.

Though statistics are not available for the last academic year, the impression is that study centre use has seen a steady increase over time and it is anticipated that, with more courses being added, it will continue to do so over the next few years.

The university does not employ staff on a full-time basis to run study centres and because of the availability of good educational institutions around the country, does not need its own premises. USM contracts to use the facilities of selected institutions during non-working hours. The university employs the most senior staff person, designated as Resident Tutor, at each host institution to manage the centre.

The resident tutor is paid a small monthly honorarium to carry out required activities and takes direction from the Director of the Off-Campus Program. The resident tutor in turn supervises and directs a host of subject tutors. In 1990, some 229 part-time tutors were employed by the Centre to cover the territory. They are all paid by the hour and their responsibilities include assisting the students under their care with specific study problems, help in laboratory classes, counsel on study strategies, help in carrying out assignments, marking the assignments and providing feedback to students.

Besides support in the regions, the university also runs two campus-based support services. These are a reference library service whereby students from throughout the country can borrow books from the university's main library which houses nearly 500,000 volumes of books and journals and a counselling service through a 'HOT LINE'—a telephone recording service which is available 24 hours a day throughout the year.
ASSESSMENTS AND EXAMINATIONS

All regulations relating to course assessment and examinations are decided by the senate of the university. The responsibility for carrying these out rests with the examinations section of the university's registry. In order to minimize inconvenience to students, examination centres are set up throughout the country with the assistance of the examination syndicate of the Ministry of Education. Examination papers are dispatched to the various centres where the syndicate officers undertake proctoring and strictly supervise the annual written examinations which are compulsory for all courses. To provide a second chance for those who fail in a sitting, a supplementary exam is also held. In most cases the course work contributes 30-40 per cent towards the final grade.

ORGANIZATION & ADMINISTRATION

The Centre functions as a faculty of the university. Under the governance of the university's senate it formulates its academic policies on such matters as courses, teaching methods, delivery systems, and exam systems. To execute the policies, the Centre operates under the leadership of a director, who has three deputy directors to look after the various academic functions such as curriculum design, course creation and tutorial support systems.

There is also under the director a senior assistant registrar and two assistant registrars who assist in the administration of the system (course registrations, student records, material dispatch and assignments receipts, production schedules, warehousing etc). In addition, a student counsellor works with the academic and administrative staff to reduce student problems.

FINANCIAL RESOURCES

The off-campus program derives its operational and development budget from the government of Malaysia. A fee is also collected from the students, but under the existing financial regulations of the government this revenue is returned to the federal treasury. In 1990, the Centre received a total operational allocation of MYR.3,053,120 (CAN$1,507,020). This figure includes the wages of the personnel working full time in the Centre, but does not include the cost of the wages of the other sectors such as the Central Printing Unit, the Centres of Educational Technology, the various faculties which provide academic manpower, the Registry, Bursary, Library and Chancellery which all contribute a certain portion of their own resources towards the running of the off-campus program.

COST EFFECTIVENESS

In 1985-86, a detailed analysis was carried out by the university to determine the cost-effectiveness of the program. It remains the most detailed investigation to date and therefore is cited here. The
Centre's main expenditures fall into four major categories which are:

(a) Developmental, which mostly relate to the purchase of text processing services, data storage and transmitting facilities as well as the provision of working space for its staff. Since buildings within the campus are already there, the Centre actually enables the university to make a more efficient use of these; and hence, they do not get included as part of the cost of off-campus operation. Printing facilities and non-print media production facilities are central facilities of the university—the Off-Campus Centre is but one of the many users of these resources. Taking away two of the above items from the Off-Campus budget means in 1985 the development cost of the Centre at MYR.303,328 (CANS149,723) constituted 7.7 per cent of its total cost.

(b) The operational cost in 1985 was MYR.748,048 (CANS369,237) or 19 per cent of the Centre's total budget. A substantial portion (about 45 per cent) of the money went towards the support of the tutorial system. One of the Centre's major functions is text processing and this component consumes perhaps 20 per cent of the operational budget.

(c) Staff wages at the Centre since 1981 have seen a dramatic increase. This is a reflection of the Centre's move towards having its own academics as befits a faculty. The academics who form part of the Centre's establishment will eventually be responsible for the creation and management of all the off-campus courses. At the moment the Centre has filled less than 50 per cent of its staff strength. In 1985 the total wage cost of the Centre-based staff (both academic and non-academic) amounted to MYR.1,231,371 (CDNS607,805) or about 36.3 per cent of the budget.

(d) The Centre relies on many parts of the university community to provide a variety of services. These range from providing content specialists, printers, audio and video producers, to administrators of one kind or another from the chancellery, registry, library, bursary, etc. Using a formula devised in 1981 by the reviewers of the Ministry of Education, these 'in-kind' services amounted to MYR.1,653,462 (CANS816,150) dollar value or roughly 42 per cent of the cost of running the off-campus program. In any dual mode institution it is inevitable that a certain portion of the cost of maintaining the whole university has to be assigned to the off-campus sector. The amount depends on the level of sophistication the Off-Campus Program takes. In the case of USM this level is high and consequently the cost of their contribution is also acceded a high value.
The following table is a conservative analysis of the cost of operating the Off-Campus Program between 1981 and 1985. It can be seen that the cost of maintaining students saw a steady increase over the period. This is partly a reflection of the Malaysian government's decision to upgrade the quality of program in 1981.

**THE OFF-CAMPUS PROGRAM BUDGET (1981-85) (IN MYR)**

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<tbody>
<tr>
<td>Development Cost</td>
<td>40,960</td>
<td>150,400</td>
<td>70,000</td>
<td>144,000</td>
<td>303,328</td>
</tr>
<tr>
<td>Operational Cost</td>
<td>624,400</td>
<td>909,306</td>
<td>662,225</td>
<td>666,592</td>
<td>748,048</td>
</tr>
<tr>
<td>Staff Salaries</td>
<td>372,121</td>
<td>362,100</td>
<td>607,017</td>
<td>755,384</td>
<td>1,231,371</td>
</tr>
<tr>
<td>Cash Value</td>
<td>1,133,457</td>
<td>1,246,457</td>
<td>1,366,914</td>
<td>1,503,148</td>
<td>1,653,462</td>
</tr>
<tr>
<td>Total</td>
<td>1,607,978</td>
<td>3,668,213</td>
<td>2,706,156</td>
<td>3,099,124</td>
<td>3,836,209</td>
</tr>
<tr>
<td>Enrolment</td>
<td></td>
<td></td>
<td>742</td>
<td>937</td>
<td>1,102</td>
</tr>
</tbody>
</table>

Notes:
1. Development Cost: does not include cost of buildings and facilities previously installed.
2. Operational Cost: includes the recurrent expenditures for materials and supplies (including chemicals, glassware etc.) for running the programs. The figure also includes the wages of regional staff, rentals and utilities.
3. Staff Salaries: the wages excluding fringe benefits of academic as well as non-academic staff of the Centre.
4. Cash Value: in-kind contribution of the other sectors of the university towards running of the off-campus program. Contributions come from the Chancellery, Registry, Bursary, Library, Central Printing Unit, Faculties of Mathematics, Chemistry, Biology, Physics, Social Sciences, Humanities, Languages and Educational Technology.

A recent publication of the university seems to indicate that in 1990, the Centre's budget amounted to MYR3.1 million (CAN$1.5 million) (3.14% of the university's total budget). This did not include the cash/in-kind contribution made by the rest of the university to the Centre's operation. Extrapolating the 1985 figures, a conservative contribution would add about 42% to this, making a total of MYR5.3 million (CAN$2.6 million) (or 4.13% of the University's total budget).

Various authorities have clearly expressed the difficulties of working out accurate cost-effectiveness arguments for running
distance education programs. This may in part be true for single
mode open learning systems. It is certainly more difficult for the
dual mode ones, where clear-cut formulae do not exist. Frequently
the dual mode institutions begin by presuming that their external
studies program does not need or consume new resources but will
rely on efficient and complete use of existing ones, both human and
material. Experience in Malaysia and elsewhere clearly indicates
that this assumption is not completely accurate. External studies
programs need additional resources. The cost of graduating an
external studies student will very much depend on the academic
structure, the quality of course ware, the strength of the delivery and
support systems. In the case of USM a very rough and simplistic
cost analysis indicates that in 1985, the full annual cost of
maintaining an off-campus student carrying an 18-credit unit
workload per academic year amounted to about MYR 3,094
(CAN$1,527). Assuming that this student successfully carried the
same workload for the next five years, he/she would cost the
university about MYR 15,472 (CAN$7,637) for the 90 credits at 1985
costs. In the final year, as a full-time residential student, an
additional MYR 8,000 (CDN$3,950) cost would bring the total to
about MYR 23,472 (CAN$11,586). A similar student in the
on-campus mode would have cost between MYR 30,000 and
MYR 32,000 (CAN$14,808 and $15,795) for the equivalent 4 years
of study, or about 27.37 per cent more than his/her off-campus
counterpart. This conclusion is based on the assumption that the
off-campus student will be successful at every stage of study and
either graduate in the minimum time or continue in the system until
they finish. Once again the experience at USM indicates that less
than 70 per cent of students graduate in the minimum stipulated
time and perhaps as many as 15 percent fail to complete the
program. However, it must be remembered that up to 40 per cent of
the cost of the off-campus operation is indirect, opportunity rather
than real cost.

One other aspect in establishing cost effectiveness is the
opportunity income (savings) a nation acquires in processing students
through the distance education mode and the number of years such
graduates will contribute to the nation’s manpower needs after
graduation. Clearly in the case of USM’s off-campus program, with
99 per cent of the students in the workforce, their productivity
during the five years of off-campus studies should considerably
lower their educational cost to the system. On graduation most of
the students can be expected to work for at least another 15 years in
their professions, making a further contribution to societal needs.
Clearly USM’s off-campus program should therefore be considered a
cost effective contribution to the Malaysian economy and human
resource needs.

CONCLUSION

The USM program has now existed for twenty two years. What
started as a cheap, perhaps quick and certainly lukewarm response to
a challenge has evolved into a highly successful operation. It has
played an important role in providing additional access to higher
education, in a country woefully short of student places at tertiary education levels.

The university has successfully integrated on- and off-campus delivery of courses that are similar in curriculum and syllabus. Additional spin-offs from the initiative have included the creation of learning materials in the national language (Malay), access to self-learning materials for slow or under prepared learners studying full-time on-campus and a more professional approach to teaching by academics, in the design and delivery of courses and greater use made of the newer technologies for academic and administrative purposes.

The off-campus initiative took advantage of human and other resources already available in the university. This provided a perhaps marginal cash reward but took advantage of a large in-kind contribution - the use of excess resources to provide opportunities for up to 25 per cent more students with an additional 3.14 per cent in the university’s recurrent budget cannot be underestimated.

Because the delivery of curriculum to a basically adult population was done by a conventional establishment, questions of disparity in standards, respectability, or acceptability never became contentious issues. The off-campus program was never equated to shabby correspondence schools but was accepted as part of a nationally accredited, respected institution of higher learning.

USM’s unique strategy of bringing their off-campus students on campus to study full-time for their last year of study not only enriches the older students but also benefits the lecture room environment where healthy debate and broader perspectives are shared with younger classmates. In addition, the inclusion of senior off-campus students has boosted the enrolment in higher level specialist courses, making them both more learning effective and cost efficient.
CHAPTER 8

MURDOCH UNIVERSITY: INTERLOCKING THE LEARNING MODES

Patrick Guiton

"To study social forms, it is certainly necessary but hardly sufficient to be able to describe them. To give an explanation of social forms, it is sufficient to describe the processes that generate the form." (Barth, 1969.)

INTRODUCTION

When Murdoch was established as Western Australia's second university in the early 1970s it was inevitable, if perhaps regrettable, that it should be located within the Perth-Fremantle conurbation. Regrettable because this conurbation lies in the southwest corner of the state's huge land mass and Murdoch's mandate included an objective, "to open opportunities to benefit from a university experience for those who are disadvantaged by an inability to participate in a regular programme of university studies". Inevitable because Murdoch was founded as a dual mode institution to which younger students would come predominantly from metropolitan schools. They, their parents and, importantly, their school teachers would expect campus based education to be readily accessible and would select a preferred tertiary institution accordingly. So, although the new university was offered sites in at least two country towns, its planners declined the invitation to decentralize and Murdoch consequently took a very different path to that followed earlier by the pioneer of Australian dual mode university education, the University of New England (UNE), when it located at Armidale in rural New South Wales. It was a path which ensured that off-campus, or, as we prefer it, "external", study would never be the dominant learning mode at Murdoch. However it also ensured that guided independent study would be an alternative available to all students who preferred it, either on a regular or an occasional basis, rather than providing only for a specific off-campus group. In 1990 over 60% of Murdoch graduands had academic profiles which included some mixture of "internal" (on-campus) and "external"

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(off-campus) study. Murdoch is therefore essentially a mixed mode university in which the mixture is an aggregate of student choices, exercised within a set of academic and organizational constraints.

PLANNING

Planning for Murdoch University’s establishment began in 1970 and its first students were admitted in 1975. Early in the process it became clear that distance education would feature strongly in the academic plan. While the University of Western Australia (UWA) had long carried a nominal responsibility for university external studies it had been less than enthusiastic, confining its off-campus credit courses largely to those specifically required by in-service teachers who were posted to bush schools before completing their studies. Both universities saw their interests served by a transfer of responsibilities. Murdoch’s view of the potential offered by distance teaching and learning was much more ambitious, forming as it did an integral part of a founding ethos which fostered innovation and flexibility in teaching alongside a strong academic research base (Bolton, 1985). UWA was freed to focus on campus based teaching for full-time students and part-time evening students. In addition, UWA had at its campus a strong and well regarded program of non credit extramural education with which Murdoch was happy not to compete in the early years.

In seeking to establish its credentials, any new university will wish to distance itself from what it perceives as traditionalism in others. To some extent this is merely a way of creating a viable market niche. But it is more than that. Beloff (1968) argues that a major attraction for foundation academic staff in the British post-Robbins new universities of the 1960s was the opportunity they were offered for major syllabus reform on a scale which academic politics would render impossible in established institutions. While this observation may appear self-evident it carries some important implications for the introduction of dual mode education. The easier option for established universities may well be to plan a structure in which the internal and external modes run in parallel, but with separate academic staff teaching separate courses to separate categories of students. There are several successful precedents for that approach. But with such parallel structures there is always a risk that the external stream may become regarded as a "substitute for the real thing" rather than as a viable study mode in its own right. By contrast, the integrated dual mode structure avoids such segregation by ensuring that courses are planned, developed and taught by the same academic staff to students enrolled for the same awards whether they are located on- or off-campus (Smith, 1979). In this way, the perceived quality of courses delivered by non-traditional methods is protected, and students are enabled to move between the study modes as and when their personal circumstances demand. As with most innovation, however, the introduction of such integrated structures may be more easily effected in the planning of new institutions than added to those with well established traditions and practices.
THE ACADEMIC STRUCTURE OF MURDOCH UNIVERSITY

Murdoch University was established with six schools; each containing, for academic, administrative and resource purposes, a number of programs of study. The major purpose of this type of organization was to foster cross-disciplinary interaction and to avoid the rigidities which can arise from a more traditional academic discipline or departmental structure. There are two science based schools, one relating to Environmental and Life Sciences and the other to Mathematical and Physical Science. Among their programs are the familiar range of disciplines (from biology through maths to physics) and some directly cross-disciplinary ones including Population Resources and Technology, and Information Systems. The School of Humanities covers literature and communications, but also has a strong commitment to Asian Studies which involves it in a range of inter-school links with Economics, Commerce and Law and with the Social Sciences. Mainstream Social Science programs include Psychology, Sociology, Politics and Philosophy, but this school also places a strong emphasis on inter-disciplinary linkages which provide programs covering Australian Studies, Public Policy and Women's Studies. The Women's Studies development is of particular interest in the current context. During the early 1980s, academics in three Australian universities (Queensland, Deakin, and Murdoch) were anxious to develop undergraduate programs in Women's Studies. None of these groups alone had the strength to marshall the resources required. However, by networking they were able to establish a structure which served both their individual and collective interests. Each of the three participant universities designed a number of separate but compatible course units. These were then pooled and each partner was able to establish its own Women's Studies degree major in which students are required to take some of their courses from the other universities, by cross-enrolment. Since the three participant universities are situated in different states of Australia, distance education was a fundamental and indispensable feature of the Women's Studies model and that in itself provided a novel prototype for inter-institutional collaboration in Australia. However the fact that each of the participants was a dual mode university enabled them to go further by offering the degree not only to externally enrolled, but also to campus based students. "Home" course units could be taken by standard class attendance while those of the other two universities were accessible through distance education. Women's Studies students are thus operating within a dual mode structure by exercising choices for "mixed mode" enrolment (Thornton, 1986).

Finally, Murdoch has two professional schools, Education and Veterinary Studies. In-service teacher education, more particularly for the Bachelor of Education, has long been the bread and butter of

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1A Murdoch 3 year undergraduate degree program normally comprises 72 credit points. Part I of the degree (24 credit points) is designed to prepare students for Part II studies (48 credit points) and contains a foundation course, a number of program prerequisite courses and scope for first year students to develop their academic interests before concentrating on Part II specialisms.
many Australian external studies programs and Murdoch has serviced that demand. However the School of Education also made a bold decision at an early stage to offer courses designed for the initial training of new teachers by distance education. With the use of on-campus attendance requirements to cover supervised classroom practice the programs at both primary and secondary level have been of particular value for women seeking re-entry to the work-force from locations throughout Western Australia. While the initial training of veterinarians at a distance has not been attempted, this professional school has been very conscious of its responsibilities to the continuing education of its graduates and other practising vets. This has resulted in an innovative masters degree available only by external study, and built around clinical projects which are conducted in the student's own professional practice.

By 1990 all six schools of study were actively involved in the provision of dual mode education. More than 70% of the University's undergraduate and postgraduate awards were fully available for study and graduation entirely in the external mode or, should the student prefer, by a mixture of campus and off-campus study. The proportion of external mode to total course enrolments averaged around 20% overall in terms of full-time student equivalents (EFTSU) although at any one time well over one third of Murdoch's student body would be taking at least one course unit in the external mode.

Undergraduates are, in general, admitted to the university rather than to a specific school although the necessity for tight quotas in some popular programs has modified this broad principle. The purpose behind this policy is to underpin a degree structure which requires a more or less broadly based first year, including a foundation course, before students concentrate on the program specialization of their choice. General admission to the university, rather than to a particular department, also means open access to either study mode. Because Murdoch has always had a relatively high proportion of mature undergraduates, and because many of these live and work in Perth, this particular flexibility has always been popular. A civil servant in the city may, for example, be entitled to one afternoon's study release each week, but may also wish to proceed towards graduation at a faster pace than this minimal attendance permits. A rural teacher may have accumulated sufficient leave entitlement to permit a full-time semester of on-campus study. In both cases provision for mixed mode enrolment, whether concurrent, (the civil servant), or consecutive, (the teacher), provides a flexibility which students in single mode institutions cannot readily attain. By providing learners with increased control over the pace and style of their study patterns, dual mode institutions which encourage mode mixing are therefore actively fostering greater openness in learning.

THE STRUCTURE OF EXTERNAL STUDIES

At Murdoch the operational planning of distance education was directed by three guiding principles adopted in 1974. First,
"external" would describe a study mode rather than a category of student. This established flexibility as a basis for planning access to independent study, and ensured that students would be able to move between campus based and home based study as their circumstances required. Second, it was decided that programs, or award courses, would be offered right through from first year to graduation or not at all; there would be no part awards in which off-campus students could only proceed so far before coming into residence for completion. A corollary of this was that component course units of an award would be developed sequentially so that a student using only the external mode could graduate in six years from commencing enrolment; half the pace of a full-time student. Third, and following directly from the second principle, all academic staff would be required to teach in both the campus and the external modes as and when the course units for which they were directly responsible came forward in the academic planning schedule.

These requirements ensured that academic planning processes had always to treat the external mode as an integral component, and not as an optional extra. This of course has been a major bonus for those whose task it is to provide viable study programs for distance learners. Less attractive were the workload implications which would flow inevitably, and quite unavoidably, from the preparation of independent study materials according to such a lockstep growth model. Nevertheless the alternatives looked worse. An external mode program in which course offerings were random, and awards incomplete, would be frustrating enough for students living relatively close at hand who might have some scope for campus attendance. For students scattered widely over the outback of Western Australia and beyond, such fragmentary provision was likely to be intolerable. It would also have run counter to the new university's claim "to provide a liberal and relevant education for a varied range of students, some of whom will be External, drawn from a wide range of age groups and from many walks of life" (M.U. Triennial submission to the Australian Universities Commission for 1976-78).

The decision to develop and offer a wide range of complete degree programs, each comprising as many as 24 course units, was just as bold and just as ingenuous, as the rest of Murdoch's founding ethos. There would be some compromises, but never abandonment of a core belief that distance students deserved the same quality, and as far as possible, the same range of study opportunities, as their on-campus counterparts.

In order to coordinate and foster this complex development, Murdoch established a specialist External Studies Unit (ESU) with a joint administrative and academic mandate. This contrasted with strategies adopted in other Australian dual mode universities. At Deakin, in Victoria, the organization of off-campus education was "mainstreamed" throughout and no specialist department of external studies was necessary. At Murdoch, while the distance mode itself was a mainstream activity, the university's metropolitan city context meant that the proportion of students involved solely in off-campus study would always be significantly lower than at Deakin, and a similar structure would have seriously disadvantaged those who were out of sight. The University of New England's Department of
External Studies maintained for many years that its role was appropriately confined to administrative and student counselling duties and, until quite recently, it eschewed any participation in course design. However UNE had been central in establishing that most fundamental principle of dual mode education, namely that the curriculum and assessment methods must be identical between the modes if comparability of standards is to be assured (Smith, 1979). The natural corollary to this is, of course, that delivery methods must be different, and Murdoch’s ESU has always had a specific responsibility for guiding that perspective among faculty for whom it was generally unfamiliar. The strategy adopted was to employ, in the ESU, academic staff with skills and experience in distance education, but whose credentials were also strong enough to ensure their active participation in a school’s course planning and teaching in both modes. In this way, academic faculty, who are often jealous of their autonomy in teaching strategies, receive guidance from academic peers.

IMPLEMENTING THE EXTERNAL STUDY MODE

In mid 1974, the University Academic Council adopted a recommendation that teaching should commence simultaneously in both study modes from 1975. Earlier there had been a tacit assumption that distance education would be phased in commencing a year later than the campus based program, but some urgency in arranging the transfer of responsibility for University of Western Australia external students influenced a change of strategy. While this required a frantic work schedule on the part of those responsible for initial course development and production, the decision to introduce dual mode course delivery and external enrolment at the outset proved quite correct. It established a firm base upon which it was possible to introduce an unfamiliar mode of teaching, and of workload scheduling, as a natural part of the foundation structure rather than as a subsequent “graft” onto established practice.

So important was this factor that it is all too easy to overlook some basic difficulties which arose out of it. The conventional method for calculating academic faculty workloads assumed that a working week contained three major components, teaching, preparation and research, with administration intruding more or less equally into each. Now deans were faced with a situation in which some academics would be preparing their courses for classroom delivery only, while others had to undertake double preparation of content for delivery by different methods to off-campus and resident students. The deans’ initial and, in several cases, sustained reaction was to argue that the conventional contact/non contact hour formula was inviolable. To introduce workload allowances for preparation of a second delivery mode would open the floodgates to other special pleading and result in an erosion of the staff:student formula on which schools’ academic staff numbers were based. Over time this position was modified to the point where modest course preparation allowances were adopted by Academic Council as non mandatory yardsticks for deans to use in the allocation of teaching loads. However, with the decline in overall resource levels and the
consequent steady worsening of staff:student ratios during the 1980s, allocation of adequate preparation time for academic course coordinators has remained a problem in several schools.

Despite these heavy pressures on staff the lockstep development of programs in both modes survived and provided for a very rapid expansion rate. In 1975 when teaching commenced, six one-semester courses were offered to about 150 students but, by 1980, 94 courses had been developed for external enrolment. As new programs were introduced the growth rate continued so that, in 1990, Murdoch students could access more than 200 course units in 30 full awards at undergraduate, graduate diploma and Masters level.

Clearly such an expansion could not have taken place had the university adopted the pattern of multi-member course teams favoured in open universities. The advantages and the disadvantages of course team processes have been extensively addressed (Mason and Goodenough, 1981), but for Murdoch, the scale of operations and the comparatively short lead times available simply make multi-member course teams inappropriate. The pattern adopted has rather been one in which a course coordinator from a school works directly with a specialist ESU academic on initial course development. He or she is then expected to undertake the distance tutoring of several of the initial students in order to experience directly the implementation of the course and, as a consequence, to be in a good position to evaluate and revise it, again in collaboration with ESU academic staff. In order to maximize this opportunity for course revision to reflect teaching experience, and to ensure the continuing close identity of curriculum content between the two modes, courses have always been reprinted each year rather than being produced in bulk for warehouse storage. For a number of years this became a very severe burden on course production staff handling master copy of standard print materials, but recent advances in electronic and desk-top publishing have effectively begun to turn a liability into a specific advantage. Small institutions operating across a broad academic profile for relatively small student populations have been able to gain some benefit from "economies of scope" rather than "economies of scale" (Campion, 1989). A more pervasive and continuing constraint has been the limitation placed on media selection for course delivery by having scarce resources and enrolments scattered both geographically and across a wide range of courses. The use of broadcast media at Murdoch has therefore been limited to some experimental use of public time on a TV network serving rural regions of Western Australia, while work using narrowcast FM radio for interactive tuition won a national award before the demise of a joint universities radio station removed the carrier. The university introduced external mode science teaching from the outset and has used home experiment kits where possible to reduce the need for extensive and expensive on-campus laboratory attendance. For the most part, however, it has been print with associated audio tape and occasional video which has dominated course delivery.

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2Semester courses carry values of 3, 4 or 6 points. Undergraduates therefore take up to 24 semester courses in a 3-year Degree.
A broad range of course offerings is generally appreciated by students but it is not without its disadvantages. Because 70% of the state’s population lives in the Perth-Fremantle conurbation and no other town has more than 25,000 people, most Murdoch rural students are dependent on direct radial links to and from the campus, rather than a local peer network for tuition and support. In this situation the telephone has assumed tremendous importance, both as a direct one-to-one link, and in the conference mode. Increasingly important too is the rapidly growing use of the telephone as a conduit for electronic mail and bulletin board communications which are now often available to Murdoch’s distance students at their workplace or at home (Guiton and Atkinson, 1991). Because of the thin scatter of people in rural Western Australia, Murdoch has never placed any great emphasis on the development of study centres, preferring to maintain student support resources in a more flexible form to serve individual students. In recent years, however, the establishment and growth of a number of regional post-secondary colleges in rural areas has provided the opportunity for introduction of a specialized form of mixed mode study. The colleges are anxious to expand a tertiary education profile but lack the academic staff resources to do so over more than a very limited range. The university is anxious to provide rural students, and more particularly starting students, with the most supportive learning context possible. An effective link between these two aims is provided by using the course materials developed at Murdoch for external study. Groups of first year students, enrolled for a range of Murdoch credit courses are guided systematically through these external mode courses by local college academic staff accredited by the university. A variation on this theme was also provided by contractual arrangements between Murdoch and Distel College in Penang, Malaysia, for several years.

COSTS

Much has been written about comparative costs in single mode institutions which are devoted exclusively to campus and to distance teaching respectively, (Snowden and Daniel, 1980), but until recently there had been little analysis of the fixed costs of course development and maintenance in dual mode universities. The drive towards "rationalization" of Australian distance education in the mid 1980s had the useful effect of focusing greater attention on costs, particularly as these relate to interdependence of the study modes. Rumble (1986) distinguishes between the economists' top down approach to institutional cost allocation by spreadsheet analysis and an accountant's empirical approach based on costing the specific activities involved, arguing that the latter is necessary if we are understand the largely hidden costs of course development in the dual mode system. Activity costing is, however, time consuming and the necessary data collection relies heavily on the systematic accuracy of those who record their time inputs, often while working under pressure.

Costings undertaken at Murdoch have drawn on both approaches. A 1988 study undertaken as part of the university's
successful bid to host a Western Australia Distance Education Consortium suggested that the fixed costs of course design and development accounted for approximately 25% of per capita (EFTSUs) funding, with a further 9% going to meet the variable costs of production and dispatch, the provision of counselling and other support services from the External Studies Unit. Course materials, however carefully designed, can provide only the starting point for a guided independent study system and implementation of the courses at Murdoch demands intensive one-to-one distance tutoring by correspondence, telephonic and electronic communications. The 1988 survey showed that such tutoring absorbed a major proportion (43%), of EFTSU cost with the balance accounted for by a share of central institutional costs and overheads.

Australian higher education policy has so far precluded universities from charging local students directly for tuition. Historically it has also provided parity funding for EFTSU regardless of study mode. Parity funding has been questioned on the grounds that open universities regularly claim comparative cost effectiveness as a major advantage for distance education. But, as Rumble (1992) has observed, the price which distance teaching universities have characteristically paid for their comparative cost advantage over campus based teaching is to limit both the range of subjects taught and their level of student support services. The costing study conducted at Murdoch in 1988 had indeed indicated that obtaining such comparative economies between the study modes would require students to be confined to a very narrow academic profile of external mode course offerings, and would also demand severe curtailment of teaching/learning interaction. Recent introduction of relative funding models for differential funding by academic discipline has reactivated the debate both in Australia and New Zealand, with some arguing that all off-campus enrolments should be funded at the lowest level regardless of subject matter. For present purposes it is sufficient to note that differential funding by study mode, as opposed to discipline, would effectively undermine the principle of parity between the modes, and do much to destroy the motivation for schools of study to participate. Parity of funding may therefore be a critical precondition for an effective dual mode university structure.

DISCUSSION

It has always been clear that commitment to developing a wide range of fully comprehensive programs in Australian dual mode institutions would prevent attainment of those economies of scale which have been of importance in the establishment of single mode open universities. Practitioners have been criticized accordingly (Johnson, 1983; Campion and Guiton, 1991). Efforts have also been made to encourage institutions to abandon the development of their

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3 Tertiary students currently pay a proportion of the costs under a Higher Education Contribution Scheme (HECS) levied through the taxation system on their current or subsequent earnings.
own external mode courses in favour of adopting those produced elsewhere. The thrust of such advocacy has been to emphasize that there is much duplication of effort in course development, and an assumption that this must inevitably result in reduced quality learning. In those contexts where the terms "internal" (campus based), and "external" (off-campus) describe segregated categories of students enrolled at a common institution but studying different curricula taught by separate staff, the arguments for centralizing course development and sharing the products between institutions clearly have substance and must be addressed accordingly. However at Murdoch, as at an increasing number of dual mode universities, the interlock of the modes, and more particularly of students' enrolment patterns, provides for a much more complex picture.

A major aim of those responsible for course development in distance education is to find ways in which the front end fixed costs can be spread as widely as possible. One strategy has been to develop courses for an extended life and to amortize development costs over several years of warehouse stock. Another is to pass on some of the costs by sales to other teaching institutions. This strategy, as has been observed above, runs into some serious difficulties when the receiving institution operates close integration between the on-campus and off-campus study modes. While it may well be tempted to save its own development costs for distance education by purchase from elsewhere, it is most unlikely to require its academic faculty to use that imported curriculum for classroom teaching. If it is adopted only for the external mode, a rift between the curriculum for external and internal students therefore becomes inevitable, and the flexibility offered by open access to either mode is compromised. The preferred strategy at Murdoch has been neither of these. Rather than exporting or importing curricula, course planning usually starts with the assumption that course materials may be used to guide and support learning both on- and off-campus, and that significant economies may therefore be obtained by producing for both modes concurrently. Until quite recently this strategy was difficult to sustain in the face of criticisms from both sides. Traditional classroom teaching has long favoured didactic and often spontaneous, oral instruction rather than guided independent study. Established practice in distance education has been to assume that the needs of distance learners are so unique as to demand learning materials exclusive to them.

Recent developments in flexi-mode and other patterns of open learning provision appear to have modified such conventional thinking quite significantly but it would be easy to be complacent about such trends, at least as far as they affect practice in a small university. It is true that in almost all dual mode courses delivered at Murdoch, students in both study modes now receive common print resource materials. However it must be noted that in the majority of cases these materials remain ancillary to full classroom teaching for on-campus students. Informal reports from one or two other Australian tertiary institutions have suggested more substantial progress in securing classroom contact hour reductions in exchange for guided independent study patterns but details of the motivating factors, or directives involved, are not yet readily available. Clearly assurances are required that adoption of more open classroom
teaching practices will be regarded positively by the employing institution and will not be countered by workload substitution or other personal disadvantage. But steady deterioration in staff:student ratios and in access to research time suggest that incentives do exist and the potential for distance education to influence, and perhaps to transform, traditional classroom teaching practices is readily apparent. Dual mode institutions, and more particularly those with well established mixed mode policies and practices, will be well placed to respond.

References


CHAPTER 9

THE COURSE-IN-A-BOX: DISTANCE EDUCATION AT THE UNIVERSITY OF WATERLOO

Christopher Knapper

In a country as large as Canada, it is not surprising that distance education flourishes. Despite occasionally expressed suspicions among academics that distance courses are "second best", or even second rate, it is worth remembering that one of Canada's most prestigious universities, Queen's, has been offering correspondence courses for over a hundred years. The University of Waterloo, a much newer and less traditional university, became involved in correspondence teaching almost from its inception, and this quickly grew to be the largest distance education program in the country. Yet paradoxically, Waterloo's approach to distance instruction is in many ways imbedded in very traditional university pedagogy. A second irony is that although some Waterloo correspondence students can be found in the most remote Canadian outposts (from Great Lakes steamers to Arctic settlements), the great majority of students in the program are within commuting distance of the University of Waterloo or a comparable institution. Hence the distance in distance education may be more psychological than geographical.

This article begins by outlining the history of the University of Waterloo Correspondence Program, describes the Waterloo approach to distance teaching, and discusses the characteristics and attitudes of students who have enrolled in the program. The second part of the article identifies some issues and problems of distance teaching in a large, traditional dual mode institution, and considers the practice of distance education in relation to theories and prescriptions offered in the educational literature.

A BRIEF HISTORY

The University of Waterloo is a large, fairly new, publicly-funded university located in a medium-sized conurbation about 100 km west of Toronto. It offers programs up to the doctoral level in Arts and Science, Engineering, Applied Health Studies,

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and Mathematics. Internationally, it is especially well known for its research and teaching in computer science, and for distance education.

The university was established in 1957, and the first correspondence courses were offered shortly afterwards in 1968. As in the case of many distance programs, the first students were mainly teachers wishing to upgrade their qualifications. Initial offerings comprised four courses in physics, and for a number of years the Correspondence Program was operated as an entrepreneurial arm of the Physics Department, although the range of courses soon expanded quite rapidly to include the humanities, social and natural sciences, and mathematics (Leslie, 1979). Student numbers also rose rapidly, rising to a peak in 1985, when there were 19,500 registrations in some 320 different courses.

From the outset, all distance courses were for academic credit and paralleled the equivalent on-campus courses as closely as possible. Course materials were primarily print (course notes or study guides, textbooks, readings), but an important addition was the use of audio tape which, it was believed, added a "personal quality" while at the same time being inexpensive and relatively simple to produce.

A major administrative feature of the program was the "one mailbox" concept, meaning that students communicated with the university via a central office which acted as a type of broker between student and instructor. This was especially important for handling assignments, which students were required to complete and return for grading at fixed points throughout the term. In addition, all students were required to sit a final examination that took place at centres across Canada. Originally the central office also handled the funding of the program, but this responsibility was assumed by the faculties in 1975.

THE PROGRAM TODAY

Many features of the Correspondence Program (Waterloo retains the old-fashioned title, mainly because of student loyalty to the name) remain very faithful to the original concept. For example, all correspondence courses are taught on campus as part of regular academic programs, and are usually prepared and taught by the same faculty member. Academic standards (e.g. admission requirements) are also equivalent, though of course distance courses use distinctive presentation methods, and often employ different assignments and examinations. With very few exceptions, correspondence courses carry degree credit, and have all been approved by the university senate. The same academic policies and regulations (e.g. governing course choice, academic misconduct, etc.) apply to both distance and on-campus students. Course fees are also the same, with all material apart from textbooks being supplied free to correspondence students.

Size and Scope

Enrolment has diminished slightly since 1985 and appears to
have stabilized at around 18,000 course registrations a year, spread over three academic terms. The enrollment reduction is almost certainly due to the emergence of many more distance education providers over the past decade. However, the University of Waterloo still accounts for almost half of the Ontario enrollment in university distance credit courses, and to date there have been over 250,000 registrations. Courses are currently offered in over 50 different disciplines and represent all six faculties of the university, with a majority in arts and science. Distance courses account for one quarter of the undergraduate enrollment in arts, and a fifth of the total across the university. The three correspondence terms (Fall, Winter and Spring) run for 12 weeks, with rather fewer courses (and lower enrollments) in the Spring. Students studying solely by correspondence are advised not to take more than two courses in any one term.

All distance courses are at the undergraduate level. In the early days of the program some graduate courses were offered, but these were soon abandoned because limited enrollment meant they were uneconomic. Several different degrees are available entirely through correspondence study, including Bachelor of Arts, Bachelor of Environmental Studies and Bachelor of Science. It is possible to major in about a dozen different disciplines, and although most programs are for general degrees, honors degrees are offered in English and Classical Studies. The range of courses and programs available by correspondence study at Waterloo is by far the greatest in Canada, and is one of the major attractions for students across the country. In practice, however, very few Waterloo students complete their degrees entirely through distance study. The majority combine this mode of learning with more traditional university courses, or sometimes with distance education from other institutions.

**Instructional Media**

The Correspondence Program is known for its use of audio tapes, though in fact the major instructional component for most courses is print. It is true, however, that audio tapes have been an important instructional medium since the program began—originally “reel-to-reel” and later audio cassettes. In addition to the immediacy and personal quality of audio tape, referred to above, cassettes have a number of important advantages. They are cheap and simple to record and to duplicate, the medium is flexible, and the equipment to play back the tapes is widely and cheaply available, even in remote locations and developing countries. Furthermore, tapes can be listened to in a variety of situations—for example, on a plane, bus or in the car. It should be stressed that all the audio material used for Waterloo distance courses is specially made for that purpose: simply taping on-campus lectures is unacceptable. While most audio material is fairly traditional and didactic (a single lecturer addressing the students), other teachers have been more innovative, and have used techniques common in public radio, including interviews with experts, panel discussions, poetry readings, extracts from dramas, and occasionally music (though the latter presents formidable copyright problems). Many courses also make use of “tutorial tapes” which are produced as the term progresses and
provide general comments from the instructor on completed assignments. In a few cases, instructors have asked students to make their own tapes (e.g. with information on students’ background and questions about the course) which are then summarized on tape and distributed to the class as a whole.

Contrary to a common assumption, no Waterloo distance course is required to have audio tapes, though virtually all do so, typically ten 90-minute cassettes. On the other hand, all courses include print material, most commonly textbook(s), study guides or course notes, and sometimes collected readings, in addition to general information about the correspondence program and how it operates (assignment deadlines, etc.). In some cases students are sent ancillary material such as kits containing appropriate samples (e.g. rocks for a geology course, slides of paintings for a course in art history). About a dozen courses incorporate videotape, but videos are not used as a way of conveying primary information. Rather, they are meant to depict processes or materials that would be hard to capture in print or on audio cassette. Examples include demonstration of calligraphy for an art course, historical films for a history course and recording a “live” field trip for a geography course. In addition, because of the considerable expense involved in preparing and distributing slides, video has been used as a convenient way of recording still images—for example to show biological specimens. Finally, in a very few correspondence courses, use has been made of computer applications, including distributed software and electronic mail. One ongoing use of such technology in an introductory computer science course represents a significant innovation in distance teaching, and is discussed in greater detail in a later section.

A student enrolling in a Waterloo distance course would receive a package containing tapes (audio and video, if appropriate), print material (general instructions, study guide, textbooks, etc.), and a set of assignments. This would arrive through the mail in a special cardboard container and constitutes the “course-in-a-box” for which the Waterloo program is famous. Once the course has been completed the container can be folded inside out and all the material returned to the university. This system is largely unchanged since the program’s inception, with the package intended to reflect the basic elements of an on-campus version of the same course. Such an approach is very different from that advocated by many theorists, who prefer to see distance education as pedagogically distinct, and not merely an attempt to replicate live instruction (see Holmberg, 1985). At the same time, the close correspondence between Waterloo distance courses and those offered on campus is a feature the university has frequently boasted about in its publicity material, and which does indeed seem to attract students, presumably because it lends an air of legitimacy to non-traditional instruction.

Assignments and Exams

All Waterloo correspondence courses are paced. Not only do the courses begin and end at fixed times, but there are also set dates for submission of required assignments. A course may have from three to six such assignments, which are completed by students and returned to the university for marking. In most cases this is done by
the course instructor, though some large departments also employ
tutor/markers—often graduate students. Marked assignments are
generally returned to students by mail, though the university has also
experimented with electronic means of sending assignments back and
forth, including computer mail and facsimile transmission.
Assignment marks contribute substantially to the final course
grade, but in addition there is a compulsory final examination,
which counts for at least 40% of the overall mark. Examinations are
held at 114 special centres across Canada, and students who live
more than 80 km from such a centre can write their exam under the
supervision of a proctor approved by the university.

Student Services

In principle, the same range of student services is available to
correspondence students as for those attending classes on campus,
and indeed some distance students who live near Waterloo are able to
visit their instructors, use the library, seek help from Counselling
Services etc. Clearly, however, for most correspondence students
this is impractical and special arrangements have to be made.
Contact with the course instructor is usually by letter or telephone,
supplemented in some cases by electronic mail or fax. The
University of Waterloo library will mail material to correspondence
students at no charge, and most distance learners are able to use the
facilities of other institutional libraries. Students may also purchase
study skills kits that have been prepared specially for distance
learners.

Staff from the Correspondence Program, accompanied by
academic advisers, regularly visit some centres where there are large
centres of Waterloo distance students, and there are also
support groups organized by students themselves in a number of
communities across Canada (and one in Germany on a Canadian
forces base). It should be emphasized, however, that the number of
distance students involved in these activities is a very small
proportion of the total enrolment.

At the end of each course students are asked to complete a short
evaluation form concerning such aspects of the course as quality of
learning materials, experience with the assignments and helpfulness
of comments. Summaries of these evaluations are provided to
instructors, and global summaries of responses by Faculty are
compiled and distributed to deans and department heads.
Unfortunately, in some cases the student response rate is too low (i.e.
less than 60%) to make valid inferences about course quality.
Furthermore, the response summaries for individual courses are seen
only by the instructor concerned, which means there is no way of
effecting changes where problems are identified.

Program Administration

As mentioned above, virtually all Waterloo distance courses are
prepared by the instructor who teaches the same course on campus.
Except in a few cases, Waterloo does not use course teams, nor is
there a formal course design process of the type that would be used
at many special-purpose institutions. Rather, the distance teacher
receives a general briefing from the Correspondence Office, and is
often provided with sample courses to use as a model. Instructors
are academically responsible only to their department or faculty, as
would be the case for their on-campus duties. However, most
logistical and administrative aspects of the program are handled by a
central unit, the Correspondence Office. The latter, with a staff of
37, deals with admissions and registration, duplication and
distribution of course materials, delivery of assignments, and
arrangements for final examinations. The office also arranges
copyright clearance, screens audio tapes for sound quality, and
produces most (but not all) print and ancillary course material, such
as videotapes.

The Correspondence Office reports to an academic director, who
serves as a bridge between the administrative unit and departments
and faculties. It is these academic units that select correspondence
instructors and arrange financial compensation for their work. Many
instructors undertake distance teaching as part of their regular course
load (i.e., without any additional pay). This is true, for example, in
the Faculty of Arts, which accounts for the majority of course
offerings. In the case of most other faculties, however,
correspondence teaching is taken on as overload, and the instructor
receives additional compensation (the exact arrangements for
payment differ considerably from one faculty to another). Courses
are intended to have a life of four years, after which they are
reviewed and in many cases revised.

STUDENT CHARACTERISTICS AND ATTITUDES

A major survey of Waterloo Correspondence students was
carried out in 1981 (Knapper and Wasylycia-Coe, 1982).
Approximately half of all students enrolled at the time were sent a
copy of the questionnaire, and the response rate was over 70%.
Female students slightly predominated, accounting for 56% of the
total. The age range was wide, from 19 to 77 years, with a median
of 33 for both male and female students. Most students (67%) were
married, and half the sample (49%) had children.

The great majority of students (79%) were employed, mostly
full-time (69%), though the proportion of men in full-time jobs
(80%) was significantly higher than the figure for women (60%).
Less than 10% of the sample described themselves as home-makers,
which belies the notion that correspondence courses cater primarily
to unemployed housewives. The most common occupation for
students was teacher (36% of women and 30% of men), with a large
proportion of the rest being in managerial, professional, or
semi-professional occupations (56%). A further 19% of the women
and 11% of the men were in clerical jobs, with virtually no skilled or
unskilled trades (less than 4%). Teachers were a major source of
students in the early days of the Correspondence Program, and this
remains the case 13 years later. This is also true for other distance
education institutions, such as the British Open University. The
statistics on occupation presented here confirm too that the clientele
for distance education is overwhelmingly middle class. The sample
was generally very well educated: less than 4% had not completed
high school, and 30% already had a university degree (40% of the men and 22% of the women). Hence the notion of distance education instruction providing a type of "second chance" university education may be largely a myth.

Students came from all Canadian provinces and territories, with a great majority (77%) from Ontario. Although the largest group (37%) lived in large cities with a population of 100,000 or more, another 40% lived in centres with a population of less than 20,000 and 25% lived in places with fewer than 5,000 inhabitants, which implies considerable variation in access to educational resources. At the same time, the median reported distance from a college or university was a surprisingly low 32 km.

In addition to providing demographic data, respondents were also asked questions about their attitudes and motivations relating to distance learning, some of a general nature and others relating specifically to the Waterloo Correspondence Program. Most students chose distance study because it was convenient, allowed them to study at home and in their own time, and let them combine university education with job responsibilities. About half were studying primarily to earn a degree, while a quarter had enrolled out of general interest. Among the former, many hoped to use their studies for career advancement—a better job or a salary increase. For over half of the respondents taking a distance course provided a low-risk way of trying out university-level education without the commitment of enrolling full-time in a traditionally taught program. A major reason for selecting Waterloo over other distance programs was the selection and variety of courses offered. Half the sample (52%) also mentioned that the reputation of the University of Waterloo was an important factor in their decision to take its distance course.

Students did not choose distance education because it was perceived to be an "easy option"; for example, they believed that standards were just as high as for on-campus courses and thought the courses were just as demanding. Students who had taken both on-campus and distance courses were also about equally divided in their preference for teaching format. While about half the respondents said they would have liked the chance to discuss aspects of the course with fellow students or the instructor, many others appeared to be content to rely on their own resources.

A further set of questions asked about study habits. The average number of hours spent studying for a single correspondence course each week was a little over eight (though the range was considerable). Over two thirds of the respondents said their family had been very supportive while they were taking distance courses, but a major worry for over half the students was preparing for the final examination, while not knowing what to expect on it. A much-discussed study problem for distance learners is getting access to outside reading material, but in the case of this sample only a small minority reported it presented serious difficulties.

1 The University discourages enrolments from students living outside Canada, and the few that are enrolled are mainly Canadian service personnel posted abroad.
INTERNATIONAL DEVELOPMENT: THE WATERLOO ST. VINCENT PROJECT

With the exception of a few special groups, such as Canadian service personnel and diplomats posted abroad, Waterloo does not allow enrolment in its distance program by students residing outside North America. And although people living in the USA can in principle enrol, the fact that they have to pay foreign student fees (approximately four times the fee for a Canadian resident) discourages all but a handful of applicants. One small but important exception to this policy is a project involving students from the tiny Caribbean Island of St. Vincent. The program began in 1987 on the initiative of a Waterloo graduate who was working in St. Vincent and who noted the severe lack of post-secondary educational opportunities for local students. Vincentians wishing to obtain a degree had to study abroad—a prohibitively expensive option for residents of one of the poorest countries in the world.

On a trial basis, a number of St. Vincent high school graduates were allowed to enrol in Waterloo correspondence courses, and nine were eventually admitted to the Faculty of Arts. The program is run on a volunteer basis, with Waterloo faculty teaching the St. Vincent students on an overload basis, and teachers from a local high school acting as coordinators (and occasionally tutors) on the island. Students pay a nominal fee to the university, which absorbs all the remaining administrative costs. St. Vincent students are treated in the same manner as Canadian students, and indeed many instructors probably do not know they are dealing with learners living in the Caribbean. No attempt has been made to devise a curriculum or individual courses that are culturally appropriate for West Indian students—course content and teaching methods are exactly the same as for Canadians.

Remarkably, despite such difficulties, seven of the students originally admitted have now been awarded Waterloo degrees, and one more will complete requirements shortly. Many of the students have travelled to Waterloo for the degree convocation which, in a number of cases, was the first time they had ever been outside the southern Caribbean. The success of these students is all the more extraordinary in that they completed program requirements quite quickly, most taking six courses a year (two each term, which is the maximum) in addition to holding down jobs and meeting family responsibilities. Very few Canadian students are able to keep up such a pace.

In many ways the St. Vincent project defies conventional wisdom about culturally appropriate distance education, both in terms of course content and pedagogy. Nonetheless, it appears to have been successful because of its simplicity. The project, which was carried out with the full cooperation of the University of the West Indies, attracted the attention of the Commonwealth of Learning, and as a consequence staff from the Waterloo Correspondence Program have become involved in a number of development activities in the Caribbean, offering courses and workshops on many aspects of distance education.
SOME ISSUES AND PROBLEMS

To recapitulate, the University of Waterloo offers a large, comprehensive degree-credit distance education program that is relatively traditional and conservative in its teaching approach. It is certainly successful in attracting students, but also faces a range of frustrations and difficulties, some of which beset many comparable institutions elsewhere, while others are perhaps unique to Waterloo.

Decisions about Innovation and Technology

Despite Waterloo's reputation as a technologically innovative university, it will be evident from the earlier description of correspondence program operation that the use of technology in distance education has been extremely cautious. This is partly because of costs, but also due to a philosophy that the most effective technology is often the most flexible and simplest -- what Schramm refers to as "little media" (Schramm, 1977). This dictated the adoption of audiotapes in the early days of the program (at the time quite innovative), and sustains their use today. It also reinforces the importance of a good deal of print-based material, which is still one of the most convenient educational media available, as evidenced by its predominance in nearly all distance education programs worldwide.

As mentioned above, Waterloo has gradually introduced some more recent technology, such as fax machines for communication between students and instructor. There is also limited use of videotape, but great efforts are made to ensure that the video material merely adds a dimension to the course that would be otherwise unavailable, and is not simply a replication in an expensive medium of material that could easily be communicated more cheaply by audio or print. For that reason instructors have been discouraged from preparing videotaped lectures. Other technologies have been considered, and in some cases tried, such as audio teleconferencing. However, student response confirmed suspicions that the necessity to be in a certain place at a certain time undermined the flexibility that makes the Waterloo approach so attractive. As a result, participation was very low.

Although computers had long been used for certain administrative functions in the Correspondence Office, computer-based instruction in Waterloo distance courses was virtually unknown, apart from the occasional small experimental application by an enthusiastic instructor. This reflected some disenchantment with computer-assisted instruction in on-campus courses, where a number of ambitious applications had been tried and later abandoned. A consideration of program weaknesses revealed one area where it was felt computers might play an important role. This was the problem of "turn-around time" required to receive assignments from students, mark them, and send them back. Doing this through the regular mail (still the predominant method of communication) causes delays of around three weeks, which means that students do not get appropriate feedback in time to help with preparation of subsequent assignments and examinations.
Use of computer communication in the Waterloo program was first developed for an introductory computer science course (CS100), which provides an introduction to a number of computer applications, ranging from word processing to simple programming (Black, Cowan, Dyck, Fenton, Knapper, and Stepien, 1987). With a donation of equipment and some additional funding from Toshiba, a special distance version of this course was prepared, comprising the familiar audiotape and print components with the addition of a set of computer-based exercises that students complete as assignments relating to the various applications being taught. Each student is loaned a laptop computer and printer, and supplied with appropriate manuals and software. Assignments are completed on the laptop and sent to the instructor via electronic mail, accessed through a regular telephone which is attached to the computer's built-in modem. Feedback on the assignments from the instructor or marker is communicated to students in a similar manner. The course has proved very popular and successful, with attrition rates being much lower than in the program as a whole. The course can accommodate 35 students at any one time (primarily due to limited supplies of hardware), and has been offered twice a year for the past four years. In principle, students can use their own equipment, though this provides logistical and technical complications, especially for beginners—to whom the course is addressed.

The approach of using electronic mail to facilitate communication between students and instructor (and perhaps among students) seems to have considerable potential, and has been tried in other Waterloo distance courses—though not on a regular basis. One problem, however, with use of any technology in distance education is to ensure that all potential students have access to equipment that is required for the course. Otherwise, it is possible to disadvantage students from certain income groups or people who live in particular locations. This is why Waterloo felt it desirable to distribute all the required hardware and software when the CS100 course was first introduced, and why, in other courses, even videotapes were not used until information had been collected to show that virtually all potential students had access to a video cassette player. If broadening educational opportunity and access is a major rationale for distance education, then technology should be viewed as a way to extend such access, and not entail limitations due to economic or geographical considerations.

Program Quality

From its beginnings, distance education has always had to struggle against the notion that it is an inferior alternative to more traditional types of teaching. Indeed, until very recently, some Ontario universities refused to grant transfer credits for courses taken by correspondence, even though university-level distance education has existed in the province for over a 100 years. Although such questions about parity are frustrating to distance education practitioners, they may perform a useful service in focusing attention on instructional outcomes and learning processes. It is ironic that similar scrutiny is generally not given to traditional
university teaching, and its effectiveness is usually taken on faith and despite a paucity of convincing empirical evidence.

One possible reason for this state of affairs is that university teaching is largely an "amateur" affair, done by academics who have extensive preparation as scholars, but little explicit training in instructional methods. In the case of distance education, the large special-purpose institutions (e.g. the British Open University, Athabasca University) have developed specialized approaches to course preparation, and the notion of course design, often done by teams comprising different academic and pedagogical specialties, has become conventional wisdom in the distance education literature. However, quite different approaches prevail in most "dual mode" universities which combine distance teaching with traditional on-campus instruction. Here, academic tradition, pressure of faculty time, and limited finances dictate methods that are less ambitious and more pragmatic. The system used at the University of Waterloo has already been described in some detail, and relies on an individual instructor, working with minimal advice from Correspondence Office staff. The end product of such "low intervention" course design (see Kelly, 1986) may be considerably less sophisticated than many Open University courses, but the approach has a number of important advantages, including relatively short development time and low cost.

One possible indicator of program quality is the number of students successfully completing a course. Attrition rates in distance education are typically quite high, and there is considerable debate in the educational literature about how to reduce them. A factor that seems to combat drop-outs is pacing—i.e. a firm timetable that prescribes students' progression through a course. Holmberg (1985) is one of a number of commentators who condemn pacing as a restriction upon the individualization of instruction. However, Leslie (1979) argues that the "individualized" nature of distance learning may in fact be a form of isolation, and he commends the notion of the "class" which is a feature of the Waterloo paced approach. Virtually all dual mode universities have paced programs, since to do otherwise would produce unacceptable administrative complications. In the Waterloo program the attrition rate is around 35%. Despite numerous attempts to pinpoint its causes, reasons for students dropping out remain elusive, and various interventions to encourage higher completion rates have been relatively unsuccessful.

Another aspect of quality in distance education relates to the range of student support services—from admissions counselling to library access—that are widely available to students on campus, but problematic for distance learners. This is not simply a matter of geography; because of the special life situations of distance learners, the type of advisory or support services needed may be quite different from what is appropriate for traditional, on-campus students. Many of the special-purpose distance universities have an extremely sophisticated range of advisory services, including residential schools, local tutors, and study centres, often supported by appropriate technology. This is rarely the case with dual mode institutions, and has frequently caused some soul-searching by program staff who fear students are being short-changed. Over the past quarter century Waterloo has introduced a wide range of
services, including residential schools, audio teleconferencing, student networks, an "Open House" on campus for correspondence students, student newspaper and regional visits. Invariably, only a very tiny minority of students take part, and indeed there is evidence of some active resistance by the great majority. Close examination of participation rates for services offered by other institutions often reveals a similar picture. This suggests that, while a range of support services is extremely important for some students, for many others the attraction of distance education is that they can study on their own, when and where they wish, without there being the social complication of getting involved with advisers or other students. This "Greta Garbo" syndrome undoubtedly exists; whether it is a desirable phenomenon is another question, and one that deserves more investigation and debate.

This leads to a final aspect of quality, which concerns the purpose of distance education and the type of learning it is intended to promote. There seems abundant evidence, including some from Waterloo, that distance students can perform just as well on traditional outcome measures (tests and examinations) as students enrolled in on-campus courses. However, there have been fewer attempts to measure more generic cognitive outcomes, attitudes and values that universities are supposed to promote. For example, while distance education is often claimed to encourage lifelong learning, Knapper and Cropley (1991) have argued that most commentators do not use the term in the way intended by its originator, Edgar Faure (1972), who envisaged a type of learning that is largely self-directed, and takes place in informal situations, not just through university courses. Knapper (1988) provides a detailed critique of the way in which distance education might be said to encourage lifelong learning in Faure's sense, and concludes that it has considerable potential to do so but may well fail if teaching approaches are modelled too closely on traditional face-to-face university teaching. In addition, it is possible that distance education that is too well designed might actually discourage students from using their own initiative and developing their own learning agendas.

Dual Mode Dilemmas

Waterloo, like most Canadian distance teaching institutions, is a dual mode university, and this creates a number of problems that may not exist for universities that specialize in distance teaching. First is the matter of program control, which invariably lies with the academic departments who select instructors, provide funding, and in principle monitor course quality. This power to make most of the key decisions about teaching methods and curriculum is in many ways quite appropriate, and provides a "legitimacy" to distance education that can be very important in attracting students. But it can also cause tension between the academic instructors and the distance education professionals who typically provide the overall coordination and administration for the program. For example, planning may be done in a relatively ad hoc manner, with courses being developed not on the grounds of need or demand, but because they reflect a faculty member's personal interest in a topic. There may also be resentment that profit from the program is used
primarily to support other institutional priorities, while funds to enhance distance teaching remain scarce.

This brings up the question of the economics of distance education. There is extensive literature on this topic, in particular dealing with costs in comparison to traditional instruction (for example, see Rumble, 1986). The so-called "industrial model" of distance education envisaged huge economies of scale, on the grounds that a single set of instructional materials could serve thousands of students (see Evans and Nation, 1989). While this has been achieved in many special-purpose institutions (e.g. the open universities in Britain, Thailand, Indonesia), in the major dual mode establishments enrolments are generally small. For example, the most popular courses offered at Waterloo enrol only a few hundred students each year, and the average course registration is around 40, with much lower enrolments in some instances. Furthermore, institutional curricular autonomy prevails in distance education just as it does on campus, and this results in considerable overlap and duplication, such as the existence of many parallel, but similar, versions of the popular introductory social science courses. Although there have been many attempts to achieve rationalization, for example through collaboratively produced courses and leasing arrangements, it is remarkable how the "not made here" syndrome persists. However, because the basic institutional infrastructure already exists, many of the costs involved in distance education are marginal, and the Waterloo program, for example, generates substantial revenue for the academic units involved.

Unfortunately, just as the costs may be marginal, so too is the activity in the eyes of many faculty members. Although distance teaching has its enthusiastic advocates, some departments may regard it as a necessary (or even unnecessary) nuisance that distracts faculty from their major task of doing research and teaching students on campus. This is compounded by an academic reward system that is perceived to place less value on teaching than research, and less still on distance teaching.

LESSONS FROM WATERLOO

Despite the frustrations alluded to in the previous section, the Waterloo Correspondence Program has demonstrated its success over a quarter century, and continues to receive visitors from all over the world interested in its rather simple and flexible approach to distance instruction. What advice might be offered to other dual mode institutions that might wish to emulate Waterloo's successes, and avoid its shortcomings?

1. Be clear about the reasons (philosophical, pedagogical, political, economic) for becoming involved in distance education, communicate them widely, and gain institutional commitment before proceeding.

2. Ensure that there is enough faculty support for the endeavour to offer a viable program, and provide appropriate institutional rewards (financial, recognition in career advancement) for participation.
in distance education.
3. In selecting instructional media, emphasize simplicity and flexibility, for the sake of both teachers and students.
4. By all means look at relevant courses developed elsewhere, and consider collaboration with other institutions in course development, but do not be surprised if local faculty wish to put their own stamp on distance instruction.
5. To avoid high attrition rates, select students carefully, and provide them with accurate information about academic standards and workload.
6. Do not make student support services too elaborate. While access to advice and assistance is essential for some students, others may well prove to be remarkably independent and resilient.
7. Ensure that there are sufficient funds to meet the administrative costs of the program, but take care to funnel back part of any surplus to the academic units who wield most of the institutional power and whose political support for distance education is essential.
8. Be aware that academic resources available to remote students (e.g. libraries) will often be limited, but try to turn this weakness into an advantage by setting tasks that encourage independent lifelong and life-wide learning.

Clearly, this short list is not a guaranteed prescription for success. However, distance education is a world-wide phenomenon that has prospered in many different situations, using a broad range of instructional methods and administrative structures. This is probably less a tribute to the programs themselves than to the students who, it is encouraging to note, persist in learning in the most difficult situations. To the extent that distance teaching continues to encourage true learner-centred education, the movement has a long and promising future.

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CHAPTER 10

DEVELOPMENT AND DELIVERY OF DISTANCE EDUCATION: THE CASE OF INDIRA GANDHI NATIONAL OPEN UNIVERSITY, NEW DELHI, INDIA

B. N. Koul

INTRODUCTION

The expression, "development of distance education," is sometimes narrowly interpreted to mean 'the preparation of self-instructional materials." Distance education is, however, a total system in which development must embrace personnel, instructional materials and a delivery system for courses and programs, including necessary networks and student support services. Development must also create a climate in which the system effects socio-educational changes required by the changing times.

A description of the development and delivery of distance education at the Indira Gandhi National Open University (IGNOU), requires some background.

The Indira Gandhi National Open University was established by an Act of the Indian Parliament in 1985 with a dual purpose--it is an open university, but it is also the premier national body charged with the determination and promotion of distance education standards in the entire country, a function similar to that assumed in other countries by a University Grants Commission (UGC). While this latter purpose is not indicated explicitly in the name of the university, the word "national" suggests the additional role. IGNOU is the only "national" university in the country and the only university funded directly by the central government.

In addition to its role as a university, three distinct functions are envisaged under the IGNOU Act:

1. Promotion of open and distance education systems
2. Coordination, determination and maintenance of standards in open and distance education systems

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1 Other Indian universities receive their funds wholly or partially through the University Grants Commission of the Government of India. State universities are also partially funded by state governments.
3. Funding various distance education institutions in the country.

The political will to establish IGNOU was motivated by socio-educational factors which determine the public and political expectations for IGNOU, and have shaped the functioning and growth of the university.

In a country of over 850 million people, only about 4.4 million students, 6% of the relevant age group (17-21 years), were engaged in higher education in 1990 (World Bank, 1990). Of these, less than 11% or about 0.48 million studied through the distance mode. During the 8th Plan Period, (1992-1997), another 1.5 million students are expected to enter higher education at a distance and of those, IGNOU alone is expected to admit about 0.25 million students—the existing annual enrolment at the University having stabilized at around 50,000 students.

The rate of growth is illustrated by IGNOU enrolment figures:

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DEVELOPMENT OF DISTANCE EDUCATION AT IGNOU

The development of distance education at IGNOU has resulted in the formation of organizational structures, and processes within these structures, which relate to the dual functions of the university, as the premier national distance education body and as an open university.

The Premier National Distance Education Body

IGNOU promotes, sustains and determines standards by means of the Distance Education Council and professional development programmes.

(a) Distance Education Council (DEC)

IGNOU is responsible for promoting and coordinating the systems of open distance education in the country as well as for the determination of its standards at the level of higher education. Devolving such functions on an institution, which by itself is a university, has no precedent in India, nor perhaps elsewhere. Progress on this front has therefore been slow. After some exploratory efforts during the first few years, the university has now

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established the Distance Education Council (DEC) as a statutory authority in accordance with the recommendations made by a committee--the members of which were the Education Secretary, Government of India; the Vice-Chairman, the University Grants Commission; and the Vice-Chancellor, IGNOU--and approved by the UGC in February 1991. Representatives on the DEC are from the open universities, directorates of distance education within conventional universities, other distance education institutions, the Ministry of Human Resources Development, Government of India, and the UGC. The first meeting of the DEC was on April 28, 1992, and it has already taken some significant steps to achieve its objectives:

i. IGNOU assumes the responsibility of funding and coordinating the development program of the state open universities with effect from 1992.

ii. IGNOU promotes the existing practice of sharing materials and joint preparation of materials among open universities to eliminate duplication of work and thus save on overall expenditure.

iii. DEC takes initiatives in building a database, disseminating relevant information to the parties concerned, prompting the state governments to establish open universities and procuring funds from the government to improve distance education in the country.

iv. DEC takes necessary steps to formulate regulations regarding the grant of funds to open universities and promotion of distance education through other mechanisms.

v. DEC initiates steps to establish a mechanism for the accreditation of courses prepared by various institutions to help determination of standards in distance education all over the country.

It is obvious that when the DEC becomes fully operational, we shall enter a new phase of educational development in India in which the quality and quantity of distance education opportunities will grow dramatically.

(b) Professional Development Program

It is common knowledge that the staff recruited in open universities all over the world have, in most cases, had little or no experience of open education systems. Academics in open universities usually come from conventional teaching institutions and their “unconsciously induced cultural bias” (Zais, 1976) makes it difficult for them to jump the conceptual limits which face-to-face teaching experience imposes on them. Media personnel are drawn mainly from commercial fields and broadcasting agencies, and are not necessarily sensitive to the concerns of academics, nor are academics aware of the concerns of the media personnel. It is not unusual for the two to work at cross purposes. The administrative and secretarial staff are drawn from various government departments, public sector organizations, the private sector and/or from the job seeking masses. They often come with peculiar
administrative notions and experiences, or none at all, and their attitudes do not necessarily suit the ethos of an open distance education institution for which the concerns of a distance learner constitute the major charge. Large bureaucracies, academics and professional staff must be sensitized to these concerns. In addition, the application of new technologies in office management and academic operations requires that the staff be trained in relevant applications.

Recognizing these issues, IGNOU began to implement systematic staff development programs in 1986. The decision was timely in relation to contemporary activities in distance education--many more open universities were being legislated and it was proposed that distance education should benefit both school-level education and training activities in the non-educational industrial sector.

IGNOU, through the Division of Distance Education, used the strategy of two to four week workshops and two to three day orientation programs. At the same time, it developed a one year post-graduate diploma program which was introduced for the first time in January, 1987. Workshops and orientation programs, supported by relevant instructional materials produced on a large scale, are now being used to train not only the core faculty of IGNOU, course writers and editors hired by IGNOU from other institutions and the academic-counsellors hired to work at study centres, but also the staff of other open universities, distance education directorates in the country and various bodies from the non-educational sector. Similarly, the diploma program is open to aspirants from all over the country. So far 628 academics and professionals have obtained the diploma by completing 30 credits or 900 student hours in the following courses:

1. Growth and Philosophy of Distance Education
2. Prerequisites and Practices in Distance Teaching
3. Self-instructional Materials
4. Student Support Services
5. Project Work on a selected topic.

This diploma, with an addition of five more courses, is being extended to an MA degree program in distance education to be introduced in 1993. In addition, there are plans to launch certificate level courses in distance education for the benefit of personnel involved or interested in only a particular aspect/area of distance education, or a particular level of its application.

Besides the efforts outlined above, the Division of Distance Education is developing a core group of trainers whose services will be made available both within and outside the country. The success of these efforts may be measured, to some extent, by the recognition they have received from countries outside India--for example, in April, 1992, two of the core group of trainers worked for one month at Mahatma Gandhi Institute in Mauritius to train personnel developing self-instructional materials for in-service school teachers.

Our efforts in developing the administrative and secretarial staff have not been as concerted, dramatic or influential as those for academic staff. Programs have, for example, remained limited to

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IGNOU staff. Nevertheless, we have used the strategies of workshops and orientation programs, supported by training materials, to sensitize staff to the distance education environment and the demands it makes on them. We have depended on programs given in-house by our own resource persons as well as those hired from outside the university, though in some cases we have sent our staff to training programs available outside the university as well. Having now gained reasonable understanding of the issues involved and the constraints we have to work under, plans are currently afoot to develop instructional/training materials which may be used not only at our university, but at all the open education institutions in the country.

Relevant staff development programs for media personnel are being arranged by the Communication Division, using similar strategies. However, the focus of these programs is only the IGNOU staff.

It is worth noting that unlike many universities, staff development has been a major concern of IGNOU from the beginning. Now, one of the major responsibilities of the DEC is to promote and sustain staff development activities in the entire country. With a reasonable degree of success in this area, and perceiving more clearly the future demands on distance education systems and the significance of staff development therein, the university is planning to establish an autonomous institute of staff development for distance education systems.

The Open University

As an open university, IGNOU gives various courses leading to certificates, diplomas and degrees.

Realizing at the outset that it would need organizational structures within which to prepare the academic core of courses in arts, sciences, etc. and to deliver them, the university quickly established schools and divisions.

(a) Schools at IGNOU

A school at IGNOU is an academic unit of core faculty (professors, readers and lecturers) from various allied disciplines. For example, the School of Sciences includes four disciplines--Physics, Chemistry, Life Sciences and Mathematics. Each school is managed by a director who may belong to any of the disciplines in the school. Each is responsible for conceiving, planning and developing courses leading to its certificates, diplomas and degrees; and each operates with the advice of a school board of studies with the school director as its chairperson. Membership of the board includes representatives from the core faculty of the school, other schools of the university and from outside the university (this latter group serve for a two-year term, at the end of which new nominations are made). Proposals discussed and recommended by such boards move on to the Academic Council for further discussion and final approval. In developing courses, each school uses the services of academics, professionals and technical personnel from inside and outside the university, and from outside
the country when needed, ensuring the quality and standards of instructional materials. Both the schools and school boards of studies are statutory bodies of the university. At present, there are nine schools:

Computers & Information Sciences
Continuing Education
Education
Engineering & Technology

Health Sciences
Humanities
Management Studies
Sciences
Social Sciences

Put together, they serve as academic homes for 26 programs\(^5\) and 248 courses\(^6\).

b) Divisions at IGNOU

Divisions at IGNOU are non-statutory service units, each managing a particular activity required to support and deliver the schools’ programs and courses. Each of the present 15 divisions is managed by a director or a registrar. For example, the Communication Division is primarily responsible for producing, on the campus, the audio and video component which forms an integral part of a course. The Evaluation Division organizes semi-annual term-end examinations for all programs/courses offered by the university, prepares the results, maintains records and arranges the certification of successful students. A full list of divisions follows:

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<tr>
<th>Administration</th>
<th>Admission</th>
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<tr>
<td>Communication</td>
<td>Computer Services</td>
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<tr>
<td>Coordination</td>
<td>Distance Education</td>
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<tr>
<td>Estate Management</td>
<td>Evaluation</td>
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<td>Finance &amp; Accounts</td>
<td>Library &amp; Documentation</td>
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<td>Materials Distribution</td>
<td>Planning</td>
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<td>Printing &amp; Publication</td>
<td>Regional Services</td>
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<td>Teachers Affairs</td>
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Each division operates with the advice of relevant committee(s), and, when appropriate, seeks approval of university authorities such as the Academic Council.

SELF-INSTRUCTIONAL MATERIALS: DEVELOPMENT AND DELIVERY

Within the organizational structures described above, self-instructional materials (SIMs) are prepared and delivered.


Self-instructional materials (SIMs)

The significance of self-instructional materials in distance education systems may be judged from the fact that very often the expression 'development of distance education' is written and read to mean 'development of self-instructional materials'. Most open universities have expended considerable human, technological and economic effort to prepare usable, learner-friendly self-instructional materials. IGNOU is no exception, but its experiments and experiences in this regard are unique. The models available included the materials then (1986) in use at various institutions, those of Dr. B.R. Ambedkar Open University (then the Andhra Pradesh Open University) from inside the country, and those of United Kingdom Open University (UKOU) and other universities outside the country. IGNOU decided that, while UKOU materials should be used as the model for the final presentation, the processes of developing such materials could not be the same as at UKOU. Even at IGNOU the processes have changed over the years--not necessarily replacing each other, but certainly contributing to the diversity which today marks the IGNOU approach to materials development. Here, we shall describe those models now in use. Some of the steps in the process of materials development are common to all our models:

1. On the basis of priorities suggested by the Planning Board, each school chooses a program/course from the possibilities in its current Five Year Perspective Plan and assigns the task of preparing a draft curriculum to the core faculty concerned.

2. The draft curriculum is presented to the "Expert Committee" for comment. Revisions are made as necessary.

3. The revised curriculum is presented to course writers who, given their field experience, are allowed to make desirable minor changes in the content, sequence of items and presentation schema.

In addition to these revisions, the course writers identify the unit(s) they wish to work on within a time-frame established by the coordinator in accordance with the needs of the school. Course writers are then given the necessary orientation to help them (i) prepare the units in the self-instructional format decided on by the school, (ii) identify areas for audio and video programs to accompany the print materials and (iii) design...

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7 A body of subject specialists, including those from outside the university, who are invited by the Vice-chancellor to discuss and make recommendations about a particular course proposed by a School. The committee reviews every course before it passes to the course writers.

8 The term 'coordinator' applies both to the official who manages a Study Centre and to the person coordinating the course writers until the final printed material reaches the Materials Distribution Division. The latter is also called the 'Program/Course Coordinator.'
assignments.

4. The units prepared by course writers are reshaped by the core faculty, if necessary, to make them conform completely with the house-style of units, edited for content and language by the content and language editors respectively and then reviewed by the Division of Distance Education for self-instructional features. If required, modifications are incorporated in the units to improve their content, language and design.

5. The course coordinator and the editor put the finalized units together to form blocks (the course booklets sent to students), and send them to the Printing and Publishing Division.

6. The core faculty in schools proofread the galleys 2 or 3 times before the final printed material passes to the Materials Distribution Division which sends the study materials to students and other bodies such as the Regional Centres.

7. At stage 5 above, areas/topics for audio and video components of the course material become clear, though some indications may be discernible even at stages 1 and 2. However, generally it is at stages 3 and 4 together that these areas/topics are firmly identified. The core faculty prepares an "academic brief" and an "academic note" on each topic. The former lists the length, theme, audience and other details of the proposed program--audio or video; the latter is 9-10 pages of typed matter detailing the academic content to be covered. These documents are passed to the Communication Division which assigns responsibility to one of its producers, who studies the documents and prepares any necessary notes.

8. A series of discussions between the producer and the academic who has prepared the "brief" and the "note" results in the "script", developed either by the producer or the academic or both or, rarely, by a script writer commissioned for the purpose.

9. Once the script is finalised, the producer takes full charge, although participation by academics in production is not ruled out. They act as presenters, take up specific roles, help in editing, etc. Both indoor and outdoor shooting are common at the university, which has the latest technology and equipment available in-house for high quality production.

10. The media program thus produced is reviewed jointly by the school concerned and the Division of Communication. Any remaining weaknesses in the program are identified and removed, completing the master-tape from which multiple copies are produced at the appropriate university facility.

11. Media materials are stored with the Materials
Distribution Division, which sends them to regional and study centres all over the country, as well as keeping them for sale.

12. In addition to printed and audio-video instructional materials, there are also low cost experimental kits sent to science students through the Materials Distribution Division. There are no facilities at the university to produce these kits so preparation is a collaborative project with other educational institutions, after agreement on the requirements of a particular program/course.

Common steps 1) to 12) notwithstanding, development of instructional materials has been a dynamic process and with experience, the university has worked through a number of innovative models of materials development, described below.

Model I--School Based Model

The school faculty conceives, plans and develops around 75% or more of the programmes/courses, depending on external course writers only for 20% to 25% of the total material needed. Editing, both of content and language as well as the unit/instructional design, is undertaken under the guidance of a senior faculty member called the Chief Editor. Apart from the actual production of audio and video materials, faculty are responsible for most aspects: graphics, illustrations and cover designs, preparation of academic briefs, academic notes, scripts, and presentation, as well as active participation in production and reviewing.

Model II--School Managed Model

In this model, the proportion of materials developed internally and externally is reversed. The materials developed outside the university are managed for instructional design and other services by a school faculty member, the “Course/Program Coordinator”. The content editor is usually a senior subject/discipline specialist from outside the university. Language editing, unit design and graphics are done by the school faculty and/or the "editorial cell", the Division of Distance Education and the empanelled graphic designers who are not employees of the university.

Model III--Collaboration Model

An IGNOU school may collaborate with another institution, specialist or otherwise, to prepare a course/program. Such collaboration may involve such varied aspects as funding, preparation of instructional materials or training of the personnel, but is always subject to full control by the appropriate university bodies, such as the Expert Committee, the School Board of Studies and the Academic Council.

Model IV--Editor Managed Model

IGNOU may contract with an 'editor', a well known subject
specialist who, together with his or her chosen course writers, has had orientation in the skills necessary to prepare SIMs. After the initial planning is over and the curriculum finalised, the editor assumes the tasks of selecting/identifying course writers; developing the units; outlining graphics and illustrations; and editing the content, language and design. Though not a university employee, the editor functions as a course/program coordinator and has access to university facilities and services such as the language editing cell, empanelled graphic designers and the Division of Distance Education, to prepare the final manuscript.

These operational models will doubtless change as the nature of courses and programs changes.

Delivery of Distance Education through IGNOU

The delivery of distance education is effected through the combined operations of five divisions--Admission, Computer, Materials Distribution, Regional Services and Evaluation. Admission records are stored by the Computer Division and the information enables the Materials Distribution Division to send study materials to students, who are assigned to their chosen study centres by the Regional Services Division. Study centres provide face-to-face contact with academic-counsellors and facilities for using audio-video programs. Students wishing to sit a final examination inform the Evaluation Division, which arranges two examinations a year for all university courses. The results are prepared and published by the same division.

The Regional Services Division has a significant role in the delivery of distance education. By far the largest division of the university, its headquarters are at the IGNOU campus at Maidan Garhi, New Delhi, but it operates all over the country through sixteen regional centres, situated mainly in state capitals. Some of these centres have jurisdiction over more than one state and/or union territory. Each has a mix of academic and non-academic staff, all full-time employees of the university. Regional centres, in turn, administer 202 local study centres. A local study centre is run by a part-time senior academic with the help of IGNOU. It is the interface between the university and its students. The centres are equipped with a small library, audio and video materials (and the necessary equipment) and a few classrooms for tutorials and contact programs. Normally, centres are open on Saturdays, Sundays and holidays and/or in the evenings according to a published schedule.

The main functions of study centres are:

(a) Conducting tutorials for students. Tutorial sessions, each two and a half hours long, include work on audio-video and study materials, general counselling and practical work. The sessions are led by academic-counsellors, locally available academics/experts. These individuals are selected from lists prepared by coordinators and forwarded to headquarters where selection decisions are made in consultation with the university schools. The selected academic-counsellors are given a two or three day orientation at the relevant regional centre
before returning to the local study centres as tutors
and counsellors.

(b) Assessing assignments. Students, personally or by
post, submit completed assignments to their
coordinator, who records their receipt and passes
them to the tutors for assessment. Tutors provide
written comments and award a grade which becomes
part of the final course score, then returns the
assignments to the coordinator, who records the
grades/scores and passes them back to the students.
A copy of each grade/score is kept by the
coordinator and copies are also sent to the Computer
Division for records and the use by the Evaluation
Division in preparing results.

(c) Information for potential students and the public on
such matters as available courses, eligibility
conditions, and examination and tutorial schedules.

(d) Providing feedback to the university. Local study
centre coordinators send periodic reports to their
regional centres. Samples (about 5%) of tutor
assessments are sent to the schools at headquarters.
This feedback is expected to help decision makers
modify and improve the systems.

"Broadcasting" has not yet been mentioned, mainly because
IGNOU has begun this activity only recently. Beginning in May,
1991, we broadcast our video programs on the National Network of
Doordarshan (TV India) for half an hour, three days a week.
Broadcast of audio programs began in January, 1992; three days a
week for half an hour from All India Radio, Bombay Centre, and
also from All India Radio, Hyderabad Centre.

Widespread interest is being shown in these broadcasts,
evidenced by the viewer/listener mail being sent to the
Communications Division. The university has reacted to this interest
by introducing a TV program, "Open Channel", the goal for which is
not only to answer the letters but to bring both the university and
DE programs closer to the students and general public. The
university expects to increase TV and radio time in the future,
permitting greater outreach. However, the issue of student "access"
will take some time to resolve.

And finally, a word about "sharing" existing laboratory and
computer facilities by renting them in what would otherwise be their
idle time. "Memoranda of understanding" are signed by IGNOU
and host institutes, permitting paid use of facilities in existing
conventional educational institutions for practical work in Science
and Computer application programs and courses. There is a double
advantage to this approach in that IGNOU obtains use of the
required infrastructure without need for capital investment and the
existing, nationally owned facilities see optimal use.

The schematic below summarizes IGNOU's delivery system.
COMMENTS

Each distance education institution is unique, unlike the conventional university which displays remarkable uniformity in essentials all over the world. Distance education institutions show unusual variety in their structure, governance, objectives, functions and product. IGNOU is unique as a single mode, dual purpose national open university, with national rather than regional objectives. The IGNOU model as a whole may not be applicable elsewhere though various of its sub-systems should be applicable in similar institutions, especially in the developing countries.

Three-tier System/Structure

IGNOU's development and delivery structure was modelled initially on the UKOU pattern, reflected in the three-tiered organization of the university—headquarters at the Maidan Garhi Campus in New Delhi, 16 regional centres run by full-time employees of the university and 202 study centres, run by part-time staff, working under the supervision of regional centres. However, the character and functions of the units at these three levels have no one-to-one correspondence with similar units of the UKOU.

The schools, divisions and other organizational elements situated at headquarters make and affect top level decisions, and control the institution's activities.

The regional centres, usually located in state capitals, serve as links between headquarters and the state or regional university operations. The existing 16 regional centres seem adequate, though the plan is to have a regional centre in each state, bringing the total to over 25. The experience of the last few years indicates that the
effectiveness of the university would increase if more responsibilities were devolved on these regional centres. Because most administrative, financial and academic controls are centralized at headquarters, the regional centres are, more or less, reduced to the status of transit locations for the flow of orders and instructions directed by the headquarters to the study centres. It would be better if the regional centres were mini-universities, with decentralization of controls, responsibilities/functions and powers. IGNOU has already initiated decentralizing steps but there is a long way to go before these centres function on their own with definite and explicitly stated mandates.

Operational responsibilities pertaining to admissions, storing and despatch of materials, monitoring of student services provided at study centres, monitoring of tutor performance, conducting examinations for students, orientation and training programs for academic-counsellors, translation and printing of study materials, dubbing of video materials into regional languages, and maintenance of student records at the regional level constitute the functional domain of regional centres if they are to play a legitimate role in the three-tier structure of the university.

For a national open university in a country of the size of India, this three tier system is both appropriate and essential to accommodate the diverse geographical, socio-cultural, linguistic and educational variations. When, as planned, IGNOU opens a study centre in each district of the country, there will be over 500. At present students do not all have easy access to the study centres of their choice; the nearest one may be more than 500 miles away and in many cases, it is these students who need study centres most.

National Network under the Distance Education Council

Though there is not yet enough tangible evidence to suggest that the National Network devised by IGNOU has immediate application elsewhere, it should nevertheless draw the attention of large countries in which different agencies and institutions are engaged in distance education. The achievements of IGNOU in effecting a common credit system, transferability of credits, exchange of study materials, adoption or adaptation of study materials, without any difficulties, across the open universities in the country (and even one conventional university) is a pioneering experiment which should interest other countries. Smaller countries may not need such an organization internally, but might consider it for developing cooperation with other countries. IGNOU’s experience may have significant use in the larger world of distance education, especially in the present context of global economic crunch. It should not only be possible, but may also be necessary, for many countries to develop and deliver distance education jointly. The IGNOU model of the DEC network may have interesting applications in such a global exercise.

Staff Development System

Though IGNOU has benefited considerably from support provided by the Overseas Development Agency (UK), the
Commonwealth of Learning (Canada) and the British Council (UK), the IGNOU staff development system is indigenous and has the potential for direct and successful application anywhere in the developing world. Its full-length formal pre-service and short-term in-service programs, as well as programs for specific interest groups and for trainers covering diverse components of distance education constitute a repertoire that should find application in contexts as diverse as India displays from region to region, institute to institute and group to group. IGNOU staff development programs should be applicable anywhere in the world, especially in developing countries.

Preparation of Study Materials in Print

IGNOU deliberately does not use the UKOU course team approach in preparing study materials because it is costly in both money and time. The models which IGNOU uses have, of course, their own advantages and problems:

(a) IGNOU’s Model I is cost effective and works well in specific programs/courses for which a reasonably strong academic base is available in a school. This model is successful if the institution concerned has "value based leadership" (Paul, 1990) at every level of operation, has expertise in strategic planning and market research, has trained and qualified staff to prepare study materials and is not working under pressure to prove its credentials.

(b) Model II has the obvious advantage of using academic resources available outside the university, is relatively inexpensive, and makes it possible for a school with limited academic resources to produce courses on diverse topics. A major problem, however, is the failure of internal and external academics to keep to deadlines. After instruction in the preparation of self-instructional materials at the university’s expense, some external academics fail to take up the writing assignments, many of those who do assume the task withdraw midway, and others do not keep to deadlines. A very small percentage keep to deadlines and do a reasonable job.

Another problem is the quality of materials prepared by external academics. Approximately 30% develop satisfactory units; another 40% make reasonable attempts, but their drafts need considerable modification by internal faculty; the remaining 30% are indifferent and frequently their drafts must be discarded. Often, therefore, schools have to try course writer after course writer, causing unusual delays and immense inconvenience to students.

Third, the combination of missed deadlines and unacceptable quality often forces the university to forego some crucial quality control measures such as field testing for learner-friendliness and helpful instructional design. Units which are subjected to such scrutiny often remain unimproved as the
academics do not have enough time to effect modifications. Linguistic editing remains superficial.

Fourth, the study materials prepared this way show that course writers are often oblivious to student ability, in spite of cautions provided during orientation programs. In their eagerness to achieve and display academic excellence, their materials become too demanding in both content and time requirements.

(c) Models III and IV cannot yet be judged because only one program uses each model and these programs/courses have yet to be launched.

Notwithstanding the present weaknesses of materials development at IGNOU, all four models have reasonable applicability, particularly when financial constraints dominate. However, the models need operational streamlining, realistic time frames, strict contractual practices, pragmatic selection of course writers, and strict monitoring schemes to achieve operational efficiency.

Preparation of Audio-video Materials

At IGNOU, fixed costs for the printed study material for an 8-credit course are Rs.0.562 million (approximately CDN$25,000), and for the accompanying supplemental media-material are Rs.0.251 million (approximately CDN$11,200). The variable costs (Pillai and Naidu, 1991) per student from a population of 5000 are Rs.0.449 (CDN$20) for printing & distribution of materials and Rs.0.499 (CDN$22) for student support services. Keeping these facts in view, I think the IGNOU approach is cost intensive. I find it difficult to advocate this approach especially when such materials constitute less than 15% of the total academic input in a course. I would prefer a model that allows a balanced mix of "fancy" and "ordinary" video/TV inputs which incorporate both an extension of the best of traditional classroom teaching, and introduce the unique communicational potential of the media.

The Delivery of Distance Education

The advantages of a centralized system for materials distribution include awareness of stock levels; easy, direct access to students; manageable controls; the economics of a single warehouse location, and easy maintenance of centralized records. If all the relevant systems are fully functional, the operations mechanized, interdepartmental/ divisional communications smooth and timely, and the staff on side, this system should work satisfactorily. IGNOU cannot, at present, claim to fulfil these prerequisites. The size of the operation makes implementation difficult and there are consequent delays and incorrect despatches. With the prerequisites met, the situation should improve, but I think that for a country like India warehousing and despatch facilities should be arranged at regional centres. This will cost more, but in this case efficiency must get the better of economy.
More serious than the problems of delivering study materials from the headquarters are the difficulties with the tutorials and counselling provided at study centres:

(a) Attendance at tutorials is thin and varied—students frequently skip sessions, frustrating the tutor who cannot maintain appropriate links between the sessions and/or the activities undertaken therein.

(b) Students fall into a cultural trap and expect tutors to deliver lectures and conduct courses in a traditional classroom fashion. The time allowed for tutorials simply does not allow for this approach, resulting in student dissatisfaction and a high dropout rate.

(c) Tutors, unfortunately, also prefer to deliver lectures, as that is what they are used to. They find it difficult to switch over to the tutorial/counselling system for which they have been hired and trained byIGNOU.

(d) Sometimes the tutor's medium of expression causes problems. Students may come to study centres to overcome difficulties caused by the language of instruction (English in most cases) and expect the tutor to resolve linguistic problems.

(e) Assignments may not be handled promptly or with appropriate care by the coordinator, the assessor or both. This weakness alone results in many dropouts.

(f) Assessors sometimes comment on and grade assignments carelessly.

(g) Audio-video materials are sometimes used indifferently or not at all, partly because the coordinators and tutors do not realise their significance, partly because technical support to keep the necessary equipment in working order in remote areas is lacking and, in certain cases, because electricity supply is erratic or unavailable at the right time.

(h) Sometimes study centres become overcrowded which is difficult for a small group of part-time faculty.

(i) Part-time staff at study centres are sometimes indifferent to student queries and requirements.

Obvious solutions to most of these problems include strong program scheduling and strict monitoring of the functioning of study centres. IGNOU has provision for both, but neither has so far been possible. This is because priority has not been given to the operational importance and necessity of such a provision and therefore all the required systems have not become fully operational.

The problems created by doubtful didactic communication at study centres may be solved by modifications in the current methodology, due consideration to the cultural trap into which the academic-counsellors as well as students fall, adequate training for academic-counsellors and more pragmatic selection procedures.

Study centres must be made more effective, not an easy task given the number of variables which have to be addressed, some of which are indicated in the following data (Srivastava et al, 1992).
REASONS FOR FAILURE TO ATTEND COUNSELLING SESSIONS

Too far to travel to Study Centres 43%
Demands of employment 41%
Family duties 34%
Shortage of time 26%
No difficulties in SIMs 16%
Sessions not up to the mark 13%
Sessions are waste of time 9%
Financial difficulties 7%

CONCLUDING REMARKS

Discussion of the development and delivery of distance education at IGNOU, and of some of its strengths and weaknesses, has been based on actual experience with the operations. There are, however, other latent issues which have significant implications for IGNOU's future.

Disciplines versus Distance Education

After the initial burst of enthusiasm for distance education, academics frequently find their commitment to their disciplines conflicting with such operational components as instructional design, tutoring and/or evaluation. Discipline based research, academic growth in the traditional sense, seems to flounder in the mire of course dispensation, educational technology and educational communication. Both the institution and the academic must overcome this conflict if the academic is to continue contributing to the development of distance education. Otherwise he or she becomes an obstacle to the system, and weakens it.

Audio-video Materials

The process of developing audio and video materials has not been particularly smooth. Often the academic and the producer disagree on production essentials, with the producer concerned about issues like the 'balance in the frame' or 'colour combination'. The academic finds the process both restrictive and inhibitive. To meet deadlines, the producer may ignore some of the concerns which the academic considers important. Equally disturbing is an academic who ignores the audio-video components of the course. Conflicts, biases and misconceptions adversely affect the development of media materials. In addition, the belief that "fancy video/TV" is the only means of using media in distance education stifles other innovative and imaginative media uses. For example, filming a good classroom experience and sending it to different study centres would not only be inexpensive but also satisfy the lecture-crazy Indian learner—but IGNOU does not presently favour such productions.
Selection and Accountability of Personnel

The academic staff of distance education institutions often perform duties which are entirely different from those of the academics working in conventional universities; even the time to be spent on campus varies. Yet the inertia of tradition leaves the terms and conditions, eligibility criteria and norms of staff selection or promotion at IGNOU the same as those at conventional universities. An academic selected in accordance with these norms is also inclined to assess individual accountability in conventional terms. For example, an academic may consider it professional to develop distance education materials for two hours at the university and spend the rest of the day on personal discipline-based work and/or other personal affairs. Both the institution and its development of distance education suffer immeasurably from this lack of attention. One of the possible solutions is the modification of selection criteria so that only those academics, from diverse disciplines of course, who indicate a commitment to distance education in terms of instructional design and educational communication are appointed.

Training for Staff Development

In distance education institutions, most staff find themselves facing unfamiliar tasks. IGNOU's training provision for the staff are not yet adequate—sometimes because of a failure to appreciate the importance of training, sometimes because of complacency and academic arrogance, sometimes because of a total lack of aptitude. Unless training becomes a formal requirement for new staff, the development and delivery of distance education, measured as a whole or in terms of its components (the quality and quantity of instructional materials, the effectiveness and efficiency of student support services) is going to remain indifferent for a long time to come.

The Distance Learner

Most distance education students do not begin their studies as "independent" learners, yet they must acquire these skills in order to survive. In addition to course packages and general support services, ways must be found to inculcate this "independence". This single issue may be the most fertile area for research in distance education for we have many miles to go!

References


CHAPTER 11

DISTANCE EDUCATION IN DUAL MODE UNIVERSITIES

William Renwick

This paper reflects on the experience of the Commonwealth of Learning (COL) in pursuing two of its functions and objectives. As set out in its Memorandum of Understanding these are: "assisting in the creation and development of institutional capacity in distance education in member countries", and "undertaking and supporting evaluation and applied research in distance education". The experience I am drawing on has been gained in the Commonwealth's two remaining regional universities: the University of the South Pacific (USP) and the University of the West Indies (UWI) which, between them (and not counting Fiji), provide university education for the peoples of 24 Commonwealth countries. It has been my privilege to be associated with both of these evaluations, the first of which was conceived as a review, the second as an appraisal (Renwick et al., 1992a; Renwick et al., 1992b). Both words express an evaluative intention, but they also point to differences between the universities as providers of distance education.

USP has included courses of study for external students as an integral part of the duties of its teachers since 1971. As the twentieth anniversary of its Extension Services approached, the university decided that a review would be timely and COL was invited to undertake it.

Extramural or off-campus study at UWI has had a rather different history. Off-campus students are admitted to some certificate and first-year degree programs and, with varying amounts of assistance from campus lecturers, they 'challenge' the university and, if successful, proceed to further degree study on one of the university's three campuses. As with USP, however, UWI has experimented with satellite communications to break down the barriers of distance. Experience gained through the University of the West Indies Distance Teaching Experience has become an important reason why UWI is now appraising possibilities for a greater commitment to the peoples in its 11 non-campus countries and to off-campus students generally by strengthening its capacity as a provider of distance education. The university's Decade

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Development Plan 1990-2000 (1991) identifies distance education as a priority for upgrading and expansion if its targets for a significant increase in the number of men and women in the Commonwealth Caribbean with university qualifications are to be achieved. After discussion between the Vice-Chancellor and the President of the Commonwealth of Learning, COL was invited to undertake an appraisal of distance education at UWI.

Another point needs to be underlined. UWI, USP and COL all have one basic objective in common: to strengthen the capacity of member countries 'to develop the human resources required for their economic and social development', to quote the words of COL's Memorandum of Understanding (1988). But in the context of institutional development this objective has a double meaning. It is the human resources of the men and women who collectively are the institution as well as those of the people and communities who are the recipients of its efforts that need to be developed. This is particularly so for universities which were established as campus-based, face-to-face teaching institutions but have later recognized that they should broaden their teaching mission by developing their capacity to provide distance education for students who, for the most part, will be off-campus students. It is not too strong to say that such universities must change their internal culture if they are to do justice to the new claims that teaching at a distance makes of them.

There are also lessons for COL to learn and, in the spirit of Commonwealth cooperation, disseminate. One of these is methodological: how to undertake processes of institutional appraisal. The others are pedagogical: through reflection, discussion, and dissemination, to improve the practice of distance education and, no less important, to explore the inter-relationships between good distance teaching and good face-to-face teaching.

In that context, one further point needs to be made by way of introduction. In talking about the potential of dual mode universities, I am not making a virtue of necessity. It is, of course, true that open universities enrolling only distance students are impracticable in the South Pacific and the Commonwealth Caribbean, as they would be in several other Commonwealth countries. But the arguments upon which this paper rests are pedagogical and I would argue for their primacy even if economies of scale favoured the creation of separate open universities. By organizing themselves to teach both off-campus and on-campus students well, universities can create the conditions for improving the quality of their teaching in both modes.

The focus in what follows is accordingly on the development of human resources within universities that are teaching through two modes — face-to-face teaching to students on campus and distance teaching to students who for the most part are off-campus — and within COL as an agency for Commonwealth co-operation. Three issues are briefly outlined: a process of appraisal; changes that are needed in institutional culture; and the possibility that universities that become dual mode institutions might take the further step and become mixed mode institutions.
APPRAISAL

Consultation is at the heart of COL’s approach to institutional evaluation. There are several reasons for this in our work with universities. Some arise from a consideration of the university’s interests, others from COL’s interests, and others again from a judgement of how, through the process of evaluation itself, those different interests can be brought together in ways that will be useful to both parties. Our working assumption is that at the end of any review or evaluation we undertake for them, universities will make their own autonomous decisions on what they consider to be the best policies for distance education in the light of their circumstances. For COL’s efforts to bear fruit, they must be perceived by the university’s teachers and administrators to be helpful. Universities, furthermore, are complex organizations. They affirm a cluster of academic values which, expressed in the research, scholarship, teaching and public service of their teachers, are often in competition when decisions are made about funding, priorities for development of new or the curtailment of existing responsibilities, the allocation of teachers and support resources, and the nature of the workloads of their teachers. To be specific, we know that existing or contemplated claims arising from a university’s commitment to distance education will be competing with other expressions of its academic mission for which compelling arguments can also be mounted. We also know that distance education can be regarded as a mixture of Wednesday’s and Thursday’s child—full of woe, and it has far to go. University teachers seldom demur from arguments in favour of research, scholarship and face-to-face teaching. These fall within the central core of a university’s traditional role. But for various reasons a university’s role in distance education may not enjoy automatic justification from the majority of its teachers. If a university has still to make the policy commitment, the arguments against doing so may be as compelling, if not more so, than those for it. Where universities have already committed themselves, the conditions under which their teachers undertake distance teaching responsibilities may make them ambivalent about its present worth or future desirability.

Thus, our perception is that an appraisal of a university’s commitment to distance education raises much wider issues of university policy than, say, a faculty or department review. The overriding aim is to assist the university to recognize its own situation. Knowledge of the expertise and practice of distance education is clearly needed; but it must be combined with knowledge of the ways in which universities and other complex, autonomous institutions set their policy agendas, determine the worth of their various activities, order their priorities, and manage themselves. COL’s role is to arrange for a small team of outside consultants to facilitate a dialogue between the university and leading members of the communities it serves on the objectives it should consider for its distance education responsibilities and how it might usefully carry them out.

The process we have used in the USP review and the UWI appraisal has been adapted from the model used by the Education Committee of the Organization for Economic Co-operation and Development for its periodic reviews of the educational policies of
its member countries (Renwick et al., 1991a). In both cases, the outside body is an international agency with access to knowledge and expertise which may prove useful to the country or institution whose policies are to be appraised. In both cases, too, the initiative rests with the country or institution to set its own agenda and the onus is on the outside agency to respond constructively to it.

The appraisal process is exhaustively consultative. The two so far completed by COL have comprised ten interrelated steps which in the following summary are described in relation to the UWI appraisal:

1. The terms of reference for the appraisal were set by the Vice-Chancellor and the President of COL in consultation.

2. The appraisal team leader visited the university region and, using the terms of reference as an agenda for discussion, interviewed widely within the university, with ministers and government officials and community leaders, to ascertain the meanings and the importance they gave it in terms of the university’s missions, the outcomes they would like to see, and any problems they foresaw.

3. On the basis of these interviews, the team leader wrote a 20 page statement, called First Impressions, in which he identified what he took to be main issues, arising from the terms of reference, that the appraisal team should explore further in an extended visit to the university and the countries it serves. Then he sent copies of First Impressions to the people interviewed and to others in the university, government agencies, and professional and community organizations, asking for comment on it. His aim was to discern the extent to which there was agreement on the interpretation he was giving to the discussions he had held, whether he had got things wrong, and whether issues had been understated, overstated, not properly recognized, or overlooked.

4. Copies of First Impressions and the responses to it from the university community were sent to the other two members of the appraisal team. Thus prepared, the appraisal team made an extended (four week) visit to the university and 11 of its 14 member countries and, using the terms of reference and First Impressions as their agenda, interviewed widely and made themselves familiar with the resources for distance education in the university, in other teaching institutions in the region, and elsewhere in the communities it serves.

5. The team wrote a Draft Report setting out its first response to the practical questions raised in the terms of reference and sent copies to the people interviewed and to others, inviting their comment. In it we were saying in effect: these are the things that it seems to us, the university will need to do to strengthen and develop its commitment as a provider of distance education. Do you agree? And
if we have got some things wrong, how do you think they should be better presented?

6. Responses to the Draft Report were received by members of the appraisal team who then met, revised parts of the Draft Report, reworked and expanded other parts, and wrote new sections to meet various points raised in the responses to it. An important feature of the Revised Draft Report was its 15 proposals which comprised the basis of a comprehensive policy for distance education for the university to consider. Most of these proposals had been included in the Draft Report but were improved in their drafting as a result of comments received on them.

7. The Revised Draft Report was sent back to the appraisal team’s ‘reference group’ in the Commonwealth Caribbean, inviting any further comment anyone might wish to make.

8. The appraisal team leader, accompanied by COL’s Director of Caribbean Programs and the COL Caribbean Representative, visited Trinidad, Barbados, and Jamaica for a series of final discussions with governments and senior members of the university administration on its three campuses. In the campus meetings, the roles were reversed. Where, in earlier meetings, it was members of the appraisal team who were asking questions, floating ideas, and seeking information, in the final meeting it was the Vice-Chancellor and his senior colleagues who were testing the Revised Draft Report and its proposals against their knowledge of their university, how it works, what the practical implications of our proposals might entail, what the prospects of their successful introduction might be and, above all, whether, taken as a whole, they seemed to be pointing in the right direction.

9. In the light of these discussions, the appraisal team leader reviewed the entire text of the Revised Draft Report, modified it in various ways, made a couple of significant changes, and submitted the Report in its final form to the President of COL, for him to send to the Vice-Chancellor for the university’s further consideration.

10. With the agreement of the Vice-Chancellor, COL published the Report for the information of Commonwealth governments and universities engaged in distance education.

More than 160 people were interviewed during the UWI appraisal, many of them more than once. We received constructive responses from people within the university and from the various communities it serves (including the Minister of Education and senior government officials) each time we circulated draft statements for comment. We benefited from many frank discussions from people on and off the university campuses who, between them, offered us a comprehensive range of perspectives on the university’s
role in distance education as it is now and as it might develop in future.

Two features of the process are worth mentioning. Both in the USP review and the UWI appraisal, we were, as outside consultants, interested in the number of unsolicited comments we received on the nature of the process we were engaged in. It was in their experience unusual—perhaps unique—for outside consultants to give them the opportunity to comment on the consultants’ understandings as they were being formed. Their usual experience was to be interviewed by some visiting consultant and then, some time later, to find a report among their papers for a meeting of faculty or Academic Committee. Because we had thought it important enough for our purposes to invite them to give us the benefit of their thoughts about our thoughts on their situation, they felt they owed it to themselves as well as to us to do so. We, of course, found this pleasing because it suggested that what we had conceived as a dialogue had taken on something of that character.

Three separate but intertwined dialogues were in fact proceeding during the appraisal process. As outside consultants, we were separately and collectively engaging significant members of the university community in discussion about its policies for distance education. As outside consultants trying to make sense of what we were experiencing, we were at the same time engaged in endless discussion among ourselves as we sought to understand what we were seeing and hearing and interpret it in relation to our terms of reference. And there was a dialogue within the university itself and among some important interests outside it about what it ought to be doing to put its distance education activities on a better footing. By circulating, in the course of the appraisal, three draft statements which invited people to form views on what they themselves saw to be key issues, we gave point and direction to those three separate dialogues. The duration of the appraisal process gave time for minds to meet, differences to be identified and explored, and preferred answers to take shape. From beginning to end, the appraisal took about 20 months, with the active engagement of the university and its communities (steps 2-9) spread over 13 months.

How quickly and how far the Report’s proposals become policy will depend on funding decisions by governments and development assistance agencies as well as by decisions within the university. But the policy document that has been produced through the appraisal process is one to which many university teachers and administrators have actively contributed; it canvasses the main issues that people within the university themselves know must be tackled; and it offers firm proposals and supporting arguments for the conclusions it reaches. The process by which the Report was produced has given its proposals a high degree of legitimacy within the university and among educational leaders in the Caribbean community it serves.

INSTITUTIONAL CULTURE

I have already foreshadowed what I shall say about the institutional culture of universities. The appraisal process COL is using is itself a response to what we see as characteristic features of their internal culture. Universities are not only complex institutions,
their complexity is itself a function of their institutional distinctiveness. In the context of this paper, the question is how to bring about changes within universities so that a new mode of teaching and learning can be established and managed on a sound basis. For the point must be repeated that a decision to make distance education a regular part of a university's mission is one that is conceptually different from a decision to establish a new school or faculty. Whatever resistance there might be to the creation of a new teaching faculty, once established it will administer its affairs, defend its corner, and make its case for additional resources by using arguments that teachers from other faculties will agree with or dispute in the light of their own experience as university teachers. But, when a university embarks on distance education with the aim of making it more than a marginal activity it becomes a dual mode teaching institution. Then it has to come to terms with claims to resources and supporting arguments that, initially at least, are likely to be outside the direct experience of most of its teachers.

Nor is it a matter only of a lack of relevant experience. There are also questions of sympathy, and that is where the prevailing values of the university's internal culture can be decisive. Historically, distance education has been one of the Cinderellas of university life. From its humble nineteenth century origins, it has been associated with extramural activities and has served men and women not thought to be 'real' university students. Against that background, it is not surprising that when, beginning in the 1960s, governments sought to improve the quality of the teaching available to off-campus students, the response from existing universities was often less than forthcoming. Within a number of university systems-Britain was a notable example-that cleared a way for the creation of open universities that would teach only off-campus students through distance modes. The timing was fortuitous because it coincided with revolutionary advances in electronic communications. There is now a large and growing body of experience in the successful provision of university programs for distance students. Distance education no longer has to apologize for itself.

There have also been important advances in a number of universities that have upgraded their extramural services and now teach systematically through distance as well as face-to-face modes. Some new universities-Murdoch for example-have been founded as dual mode universities and have from their beginning set out to create an internal culture that recognizes the claims of distance as well as face-to-face teaching. But it is probably true to say of the longer established dual mode universities that their commitments to distance teaching have grown like Topsy. Arrangements that began as small, informal undertakings by teachers who were personally committed to providing opportunities for extramural students have persisted long after the pioneering years have passed.

Though one of the newer universities, USP is a case in point. It has been one of the pioneer Commonwealth universities in the development of distance education and the use of satellite communication. In many respects, the efforts of its distance teachers have been heroic. In 1990, 38 per cent of USP's enrolment (in equivalent full-time students) were studying through distance education programs. Yet the university was administering this responsibility as if it were an adjunct of its campus teaching. There
are good explanations why, in its short history, that should still have been so. One that strikes a visitor to the main university campus, however, is the image held by many influential members of its teaching faculty of what the 'real' University of the South Pacific is. Though established as recently as 1968, it was nevertheless founded in the traditional ethos of universities in the English speaking tradition. It was conceived as a campus university. There, it was assumed, the bulk of students would congregate and many of them would live. Teaching for most of its teachers meant face-to-face teaching of students in lecture theatres, laboratories and tutorial rooms. The library and, later, computer facilities were essential requirements for their research and scholarship and for keeping up to date in their disciplines. Many, perhaps most, of the men and women who have been appointed to USP during the last 24 years have gone to the Laucaia campus expecting that that is what a university ought to be. To the extent that they have been able to influence university policy they have supported proposals that would improve the quality of its campus teaching. Few have had previous personal experience of teaching university courses through distance modes. With notable exceptions, their support for comparable improvements in the quality of the university's distance teaching has been the assent of the head more than the conviction that comes from the heart. The internal culture of the university has been conducive to improvements in the teaching of its campus students but, although sympathetic to the circumstances of off-campus students, less effectively supportive of claims made on their behalf.

These comments are made not to point a finger but to sketch the outline of some very influential educational values. What then can be done to correct the balance? In the most general terms, a dual mode university that wants to do as well by its distance as its face-to-face students must set out to correct the biases of its internal culture. This requires it first to analyse the different claims that its two teaching modes make on the academic and technical expertise, material support, and money available to it, and then to devise policies that are intended to deal reasonably fairly with both claims. We can take it for granted that any university's resources will be finite and that there will be many more claims on their use than can be met at one time. We can also take it for granted that, in universities as elsewhere, the tests of reasonableness will be in the eyes of beholders. Attempts to assess the requirements of the two modes of teaching and produce a calculus for the allocation of resources are fraught with argument, and that is one good reason why they should be made.

A planned approach is clearly desirable so that rival claims can be openly debated, objectives can be set and priorities ordered. Recent developments in academic policy at UWI are an example of this approach. Its Decade Development Plan, 1990-2000 (1991), the result of consultation inside and outside the university, sets out priorities for development and targets for student enrolments by 2001. One of the priorities is to strengthen and develop its capacity to provide distance education so that, by 2000, one eighth of its increased enrolment will be distance education students. The next step--and the one upon which the COL appraisal has concentrated--is to form a clear idea of what the university needs to do to build an infrastructure of teaching and services to support effective distance
education programs.

Dual mode universities have to acknowledge that their distance education activities must be managed in ways that are foreign to most face-to-face teaching responsibilities. The autonomy of faculties, departments and teachers in their disciplines is a cherished university value. It is fortified by the ever-increasing specialization of knowledge as well as by the concept of academic freedom. But distance education responsibilities cannot be thought of realistically other than in operational terms. Different forms of knowledge and expertise have to be combined through cooperative effort. This calls for long-term planning, concerted action across faculties and departments, and clockwork efficiency in the development of programs of study, the regular despatch to students of study materials, and the equally regular marking of assignments, tests and examinations. The challenge is to find ways of combining managerial and academic principles.

On the basis of my recent visits to USP and UWI, I suggest that a dual mode university should develop its policies for distance education in the light of the following nine propositions:

1. Distance education programs should be developed as an integral part of the university's teaching mission, not in a separate division devoted to the teaching of off-campus students.

2. Teachers in the university's teaching departments should be the primary resource for writing and revising the academic content of course materials for distance education programs. In doing this, they should work with members of a distance learning centre which would be the university's repository of current knowledge of the theory and practice of distance education, have relevant expertise for the planning and production of distance education study programs, and have administrative responsibility for the effective conduct of the university's distance education activities.

3. Distance education activities should be conducted in relation to plans and priorities and under policies and working arrangements that have the full authority of the university, are properly funded and monitored, and regularly evaluated. It is for the Vice-Chancellor and his/her management team to ensure that this is so.

4. Once priorities are set, funds are allocated, and responsibilities are assigned, administrative and financial responsibility for the development of materials, the organization of programs of study, and the conduct of the university's annual offerings for off-campus students should be delegated to the appropriate operational level with clear requirements for individual and/or collective accountability.

5. As and when required, all university teachers should be expected to participate in distance as well as campus programs, contracts of appointment should be written accordingly, and applicants for teaching positions should be fully informed of the range of...
teaching duties they might be expected to perform.

6. The contributions that a university's teachers make to its distance education programs should be planned and administered as a regular part of their teaching duties. There should be university rules for moderating teaching loads so that (as far as this can be done by rules) teachers are not penalized by the nature of their teaching, whether it is face-to-face, distance, or some mixture of both.

7. Teachers should be inducted into their role and responsibilities as teachers in distance education programs and there should be a continuing program of staff development relating to distance education.

8. As part of a wider policy of giving recognition to excellence in teaching, the university should ensure that its criteria for the purposes of staff assessment and promotion allow its teachers to include their contributions to distance education among their claims to consideration.

9. The university's policies for improving the effectiveness of its teaching, including distance teaching, should be set in a context of research, development and evaluation.

Looked at another way, these propositions are an agenda of the concerns, frustrations and complaints that university teachers and administrators typically raise when they talk about aspects of their work in distance education they would like to see changed. A university that works its way through that agenda and devises policies that give reasonable satisfaction to its teachers, students and the communities it serves will be creating the basis for the development of an institutional culture appropriate to a dual mode university.

DUAL OR MIXED MODE?

Thus far, I have been referring to face-to-face and distance teaching as if they were entirely different modes of teaching. I have been using the terms of a discourse that has evolved during the last couple of decades as advocates of distance education have reflected on what is distinctive about teaching at a distance and how it is to be contrasted with the teaching of students on a campus. It is a discourse that has served a useful purpose in giving pedagogical coherence to what, in earlier years, many mistakenly thought of as being peripheral to the serious business of learning. It has also been useful in focusing attention on the practical requirements of effective distance learning and what should be done to achieve them. During the eighties, educationists, specialists in the educational uses of telecommunications, community leaders and governments throughout the world backed initiatives based on distance education approaches and technologies. The establishment of COL in 1988 was one of the many signs of the belief of governments in the potential of distance education for tackling the daunting problems of access that all countries face.

As a means of breaking down the barriers of distance, of
increasing educational opportunity, of bringing campus resources to
students who will not get to a campus, distance education is clearly
making valuable contributions. There is no doubt that it will
continue to do so. But it is also becoming clear that the benefits of
distance education need not be confined to distance students.

We should not become mesmerized by a phrase. Distance
education signified a lack of direct personal contact between teacher
and student. But the essence of distance education materials is that
they have been conceived, devised and produced with the aim of
supporting guided self-instruction. If we shift our attention from
the problems of distance to the concept of guided self-study, the
implications for teaching and learning become much greater. It is
not surprising that study guides, course readers and texts written for
distance education students can now be found on recommended
reading lists for campus students. By definition, good
self-instructional materials should communicate regardless of the
circumstances of the people reading them.

The experience of university teachers who have become actively
engaged in developing and teaching courses of distance education
points to a similar conclusion. Such teachers commonly say how
much the discipline of converting their familiar subject matter into
self-instructional materials clears the mind. Many have found
themselves echoing the words of the small girl in Graham Wallis's
*The Art of Thought* who said: 'How can I know what I think till I see
what I say?' Many say that, as a result of what they learnt when
working as a member of a course development team, they have
improved their teaching for their campus students.

This has important possibilities for the quality of teaching and
learning in dual mode universities. The benefits for the way that
campus teachers think about their courses, present them, guide their
students through them, and assess and examine them are incalculable.
This argues for the establishment, as a matter of university policy, of
teacher development units with the responsibilities of working with
lecturers to improve the quality of their performance as lecturers and
tutors in both modes of teaching.

Nor should we think in terms only of improved performance, of
lecturers doing the same things in time honoured ways but doing
them better. The lecture, though the event upon which so much
campus teaching still centres, has long been known to be dubiously
efficient for the communication of accurate knowledge. Given the
quality of self-instructional materials that can now be produced,
there is room for approaches to the organization of campus courses
that place less reliance on lectures and more emphasis on study
guides and associated tutoring. The possibility is thus for
cross-fertilization and, to the extent that that happens, dual mode
universities will become mixed mode universities. Nothing, of
course, can be taken for granted in education and there is no
inevitability about developments in the direction of mixing the
modes for campus undergraduates. Patrick Guiton's paper, Murdoch
University: Interlocking the Learning Modes, suggests that at
Murdoch, where a deliberate attempt has been made to create a
university culture that affirms the values of both modes of teaching,
there has so far been less change in the manner in which courses are
taught to campus students than might have been hoped. This is a
cautions to be taken seriously. One lesson to be drawn from it is that
innovations in teaching approaches should always be carried out in a context of research and evaluation so that the people involved are able to benefit from the contributions of others, reflect on their own experience, and modify their approaches where necessary.

There are, finally, some very important respects in which universities, whether they think of themselves as single mode or dual mode are already regularly using a mixture of modes. To appreciate this point, we have to disengage from the current international debate about distance education with its preoccupation with increasing access to tertiary education up to first degree level. When we look beyond that vitally important concern to students engaged in postgraduate study, to university graduates in the course of their professional work, and to university teachers following their research and scholarly interests, we find that the future is already with us. The increasing possibility is that they are using a mixture of modes to keep in touch with colleagues or former teachers who are important to them. For their significant encounters in their work, they live in a world of telecommunications as well as of daily contact with colleagues on campus and/or fellow professionals.

In the context, then, of human resource development, the expertise of distance education and its various technologies has a twofold contribution to make to universities and the communities they serve. The more that universities become actively engaged in distance education the more they will increase access to higher education and contribute to the development of the knowledge and expertise of men and women in those communities. And by giving serious attention to the pedagogy of guided self-instruction, they can improve the quality of the human resources they impart to their own teaching and, through it, to the quality of the learning available to the peoples of the communities they serve.

References


CHAPTER 12

CONCLUSION: DISTANCE EDUCATION IN SINGLE AND DUAL MODE INSTITUTIONS

Ian Mugridge and James A. Maraj

In 1986, Open Campus, an occasional journal of invited papers on distance education published by Deakin University, printed two articles on the debate over the relative merits of single and dual mode distance education institutions. The first, by Fred Jeovens, then recently retired as Deakin's founding Vice-Chancellor and widely regarded as one of the principal advocates of the dual mode model, concluded that there was no all-embracing formula for the use of either form. The answer to the question, "which is better?" should be "the classical, it all depends." He emphasized this response by saying that, "if I were asked to design a DE system on a clean slate, in some part of the world unencumbered by any previous history of DE, I would say, 'Look in detail at the local circumstances, and decide pragmatically'." (Jeovens, 1986)

The second article, written by David Sewart, then Director of Regional Academic Services at the United Kingdom Open University and subsequently President of the International Council for Distance Education from 1990 to 1992, concluded that there were few, if any, examples of pure single or dual mode institutions, that most institutions have developed along pragmatic lines, driven by a variety of very practical considerations.

The objectives of the founding fathers of all our distance education systems seem to have been very similar. There has been a wish to provide an educational facility for those who otherwise would be prevented from this for geographical, domestic or other reasons. There has been a concomitant wish to establish the academic credibility of the educational offering that is made to those who are learning at a distance. There has been a further wish to try to offer to off-campus students an educational facility which makes up for the lack of personal face-to-face contact which does---or at least can---exist in the

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traditional educational model. He went on to note that "the pursuit of these similar and wholly laudable objectives" has guided the establishment of institutions designed "to meet particular exigencies, some political, some economic, some social, some geographic." His final comment was that perhaps only the so-called Queensland model, the structure developed by the founders of the University of Queensland as a dual mode institution, could be said to have developed from reasoned educational debate, that even this had, to some extent, been developed very pragmatically like other institutions and that "the benefits alleged by the proponents of the dual mode can normally in practice be seen in the single mode institutions and vice-versa and I remain to be persuaded that this particular chameleon is worthy of further study." (Sewart, 1986)

It was not the intention of the sponsors of the New Delhi symposium to revive the debate about the relative merits of single and dual mode institutions which, if it had not been put to rest by the two articles cited above, undoubtedly should have been. As both single and dual mode institutions have continued, expanded and prospered in the six years since these articles were published, as the numbers of students served by both types of institution have increased rapidly, even dramatically, other developments have occurred that have made the debate irrelevant. Principal among these has been the way in which distance education itself has developed as new or improving technologies have made different forms of student-instructor interaction possible, as additional, often very distinct groups of students have demanded attention and instruction in a bewildering variety of subjects. With these changes, the boundaries, once quite clear and well-defined, between distance and conventional forms of education have become increasingly blurred so that many researchers and practitioners are agreeing that the use of the term, distance education, itself is misleading and redundant, that the answer to the question, is this distance education?, so common in the long and ultimately fruitless debate about the definition of that term, becomes more and more "does it matter?" (Shale, 1990)

This is not the place to enter the debate about definitions or that over the merits of using the term, open learning, to describe what educators, both in distance and conventional modes, increasingly attempt to do. It is sufficient to note that evidence coming both from the distance teaching institutions, whether single or dual mode, and from conventional, campus-based institutions suggests that there may soon come a point at which there is no longer any significant division between distance and conventional education, when university education--as indeed that at other levels too--will be conducted by different means at different times and places according to the requirements of different groups of students and the resources available to different institutions. This trend is reinforced by what seems to be a world-wide tendency towards the enrolment of growing numbers of mature and part-time students and towards a growing use of various types of educational technology. Increasingly, the serving of the former and the use of the latter are coming to be seen as legitimate activities for all institutions rather than merely for the open universities that pioneered the more advanced kinds of distance education in the service of adult students
in the seventies and eighties.

This trend, it could be argued, might be viewed as a threat to the single mode universities. In a recent article, Greville Rumble of the UK Open University has advanced the view that the entry of new players onto the field of distance education could be a serious threat to the viability of institutions like his own, that the greater depth provided by the availability of academic staff in campus-based institutions and of other resources gives them a competitive edge which endangers the rather privileged position hitherto held by the great national open universities (again like his own). (Rumble, 1992) There is a sense, however, in which this commentary approaches the question from a somewhat out-dated position: as Jocelyn Calvert argues in her article on Deakin University in this collection, the day may be past when universities can be seen as wholly autonomous bodies, separate from other, similar institutions in the same state or national systems. Thus the question is rapidly becoming, if it has not already become so, one of inter-institutional collaboration designed to make the most of increasingly scare resources rather than one of competition to corner for particular institutions a larger share of the market. (Mugridge, 1992) Further, one of the strongest conclusions emerging from the New Delhi symposium related to the need for a view of university education that increasingly emphasizes the development of regional, national or even international systems. Concurrently, there is a similar need to integrate rather than separate previously disparate forms of instruction so that all can be viewed as part of a common response to growing problems of access, a need which can only be assisted by the growing integration, noted above, of previously disparate methods of instruction.

Nowhere, of course, is this more clearly the case than in dealing with the question of resources which increasingly is a vital, perhaps the vital consideration in exploring ways to increase access to university education, both in developed and developing countries--for there is a difference only in the scale rather than the nature of the problem in the first and the third world. It is clear that the twin problems of higher and more diversified demand and scarcer resources will only become more grave in the foreseeable future and that governments and universities, if they wish to deal with them effectively, must find more imaginative and cost-effective ways of doing so. Some of the ways in which existing institutions are attempting to widen access in such ways are described in the papers in this collection.

The three Australian papers--Jocelyn Calvert on Deakin, John Chick on the University of New England and Patrick Guiton on Murdoch--make reference to the recently established distance education centres (DECs) which are, at least in concept, a concerted attempt by the national government to rationalize the provision of tertiary level distance education in a country where hitherto very large numbers of suppliers were dealing with a very small, but widely dispersed market. In addition, they discuss some earlier attempts--like the Toowoomba Accord and the Women's Studies program jointly offered at a distance by four institutions, none of which could have produced or delivered the program alone--to engage in collaborative arrangements to provide greater opportunities for students in all the participating institutions.
In Alan Davis’s discussion of the British Columbia Open University, he emphasizes that institution’s growing provision of collaborative degree programs, developed and delivered by two or more institutions, one of which agrees to accredit the resulting programs, that attempt to maximize the use of existing educational and instructional resources. This is done primarily in two ways—by enabling certificate and diploma students in non-degree granting institutions to proceed towards degrees in another institution with maximum transferability and minimum delay and by providing different kinds of degree programs, principally in areas traditionally thought of as applied studies. Marian Croft, in her discussion of Laurentian University, similarly argues for the importance of course sharing agreements to the future development of distance education in her own and collaborating institutions. In this way, not only can a far wider array of courses be made available to students, but institutions are able to make better and more effective use of their own resources for course development and delivery. Finally, among the Canadians, Christopher Knapper outlines a small but successful venture in the export of a complete degree program from its place of origin, the University of Waterloo, to the island of St. Vincent.

The papers describing institutions in the developing world focus more closely on internal institutional problems and issues; but B.N. Kouf’s paper on the Indira Gandhi National Open University shows clearly how that institution has at least begun to deal with national questions of increasing access through distance education. His discussion of the legislated requirement that IGNOU attempt to coordinate national efforts in tertiary distance education and of the integration of necessary training activities in distance education into the university’s other instructional activities may provide models for other institutions.

This emphasis on inter-institutional collaboration is one which might not have emerged so strongly if this conclusion had been written before the New Delhi symposium. The question of using diminishing resources to meet growing demands for tertiary education is, of course, well-known as is the need for institutions to develop new approaches to this perhaps insoluble problem. Further, the issue—to which some attention was almost inevitably given at the symposium—of single and dual mode institutions was no longer seen as a substantial one. Implicitly at any rate, the major question that emerged was that of the most effective way of providing increased access to tertiary education. In the article cited above, Jevons had noted that, faced with tight resources, governments were increasingly reluctant to solve the problem of access by “jump[ing] in both feet first by starting an entirely new institution.” Since he wrote that in 1986, it has become clear that this applies not merely to the establishment of new campus-based institutions but also to the founding of new distance education institutions, hitherto often regarded as a cheaper and more efficient way to provide education to large numbers quickly. In other words, it has become clear that Jevons was also probably correct in his conclusion that, given that distance education may frequently be an answer to growing problems of access, “often, therefore, DE will be provided by existing institutions or not at all.”

Such a view was one of the conclusions reached by participants in the New Delhi symposium—hence the emphasis placed here on
inter-institutional collaboration. For along with this emphasis went a
concurrent view that higher education must increasingly be seen as a
matter for systems, whether they be provincial or national, to
undertake rather than single institutions, that development and
access must be viewed in much larger terms than has often been the
case to this point. This builds on Jocelyn Calvert's comment, quoted
earlier, that the days of the wholly autonomous university may be
past or at least numbered and extends it to embrace the view that the
future lies in providing access by building on the strengths of
existing institutions, by adding new activities—in this context, by
expanding into distance education as a means of providing greater
access—and by encouraging institutions to work collaboratively by
developing approaches which take advantage of their complementary
strengths.

There is some evidence that this is beginning to occur outside
the Commonwealth, that governments are beginning to realize the
practicality of building on existing strengths to achieve long term
goals of increased access to university education. (See, for example,
Gustafsson, 1991.) The papers in this collection, taken together, also
make a strong statement of the need for such a view of the future
within and among Commonwealth countries. There is a clear case to
be made for governments to emphasize the strengthening and
expansion of existing institutions by encouraging them to add
distance education programs to their range of offerings where these
to not exist and by entering into collaborative agreements, either to
share course materials or to deliver programs outside their own
jurisdiction.

In the case of the latter activity, distance education institutions
have been increasingly successful in demonstrating the usefulness of
a collaborative approach to higher education. The day is long past
when it could correctly be claimed that inter-institutional
collaboration was a good idea more admired in theory than in
practice, (Neil, 1981) and, as some of the papers in this collection as
well as others amply demonstrate, the frequency and scale of
regional and international collaboration in distance education is
growing rapidly though not without setbacks. (Moran and Mugridge,
in press.)

In the former case, that of expanding and strengthening existing
institutions, as well, there will be great difficulties. Universities
have never been easy institutions to change; and, even if they were,
the kind of changes that are being suggested are very major ones.
The nine points listed in William Renwick's paper make this clear;
and this was reinforced by his comment at the symposium that their
implementation is likely to imply nothing less than an almost total
restructuring of institutions which seek to apply them. Similarly,
Christopher Knapper's list of requirements for institutional change,
while not comprehensive, ought at least to be instructive and sound a
warning that change must be carefully undertaken. There can be
little doubt, however, that, as Jevons argued several years ago and as
the symposium participants also recognized, the choices are very
limited.
References


