A CASE STUDY IN SHARING MATERIALS IN NAMIBIA

Launching the University of Namibia's First External Degree: The Costs Of Sharing

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1. Background: the need for speed

In October 1995 the Centre for External Studies (CES) of the University of Namibia (UNAM) was approached by the Faculty of Medical and Health Sciences (FMHS), also of UNAM, to assist in exploring the feasibility of and implementation strategies for converting the existing full-time Bachelor of Nursing Science degree programme into a part-time external degree programme to be delivered by open and distance learning techniques. It was pointed out that many members of the faculty were themselves trained to first or higher degree level by distance education through the University of South Africa (UNISA) and that their and UNISA's curriculum had much in common. We decided, therefore, to seek to launch the programme quickly by way of collaboration.

The collaboration has in the event been of two kinds: collaboration between UNAM's CES and FMHS; and collaboration between UNAM, UNISA and several other external open learning agencies. The collaboration between the two internal UNAM units, as ought to be the case in any committed dual-mode university, was based on mutual self-interest: the CES needed to introduce new programmes to replace its old, phased-out programmes, as quickly as possible; the FMHS had been told by the Ministry of Health that it could no longer afford to release experienced trained nurses for full-time degree courses and had therefore to find urgently a new delivery mode for its programmes part-time if it was to stay in business. In order to achieve a speedy development it was decided to analyse UNISA's courses to see if they met UNAM's curriculum requirements. It was found that to a large extent they did and we therefore sought to buy the rights to reproduce them with minor adaptations to meet the Namibian context. After fairly straight-forward negotiations this was agreed and a price was fixed as an annual license fee as well as a per-student fee. The materials were provided on disk with permission to edit on disk and to reprint as UNAM materials with full acknowledgement of UNISA's copyright and authorship. Some courses have required more radical adaptation which has posed somewhat more complex copyright negotiations, others have had to be originated from scratch. A few courses have been bought and supplemented or adapted as needed from other open learning institutions such as the Polytechnic of Namibia, the British Open University and the National Extension College of Cambridge, UK.

This case-study, therefore, describes how it was possible to launch such a programme in a very short time. It describes the project exclusively from the point of view of the provision of learning materials , over a five-year period, the life of the first intake of students, and the planned transformation from largely bought-in materials to largely locally originated courses. It attempts to explore the real costs of what has actually happened and the predicted costs of potential alternative material development models. It analyses the benefits and disadvantages of these models both from an economic and an educational position. It recognises that the materials development element of such a programme is only one aspect: other essential elements of open learning, such as administration and student support, are not taken into account. It is hoped that lessons of general significance can be drawn from this admittedly one-sided and highly localised example of course sharing.

2. Implementation: a dream realised

In March 1997, after 18 months of planning, course vetting, adaptation and production, we launched the programme as a degree of the University of Namibia, in fact its first ever external degree. Its first intake was 187 students spread throughout the enormous country that is Namibia. By 1999 we have approximately 300 students and expect intakes of about 50 per year for the next few years and probably beyond. By the end of 2001, therefore, when the first intake will be due to graduate, we expect to have a student body of over 400.

In total, there are the equivalent of 18 full-time year courses in the complete programme. Of these 11.3 (or 63%) we have bought from UNISA at the outset and adapted to approximately 10%. Another 2.3 (or 13%) we have bought from other institutions. We have from the beginning originated 4.3 courses (or 24%). Three of the UNISA courses we have more radically adapted, to the tune of about 30%, within the first three years of use. The rationale behind the choice of what to buy and what to originate has been, in the case of UNISA, the similarity of their curricula to ours; the other bought-in courses have been more generic subjects such as Sociology, Psychology and Public Administration where the curricula have not in any case been designed specifically for Namibian nurses. Where we judged that no suitable external courses existed to meet our own curriculum requirements, we have originated the materials locally. We have attempted to exercise quality control over the courses we have bought by ensuring that UNAM faculty carefully vetted those courses and by preparing special assignments relevant to Namibian circumstances and supplementary study-guides.

It was agreed from the outset that, as the years went by, wherever it seemed appropriate and necessary, bought-in courses would be replaced with locally-produced courses, or more radically localised. In the event, in late 1998, UNISA's licensing policy changed dramatically and we were informed that students enrolling with the UNAM programme in 1999 would be the last students with whom we would be licensed to use UNISA materials: from the 2000 intake we will have had to replace UNISA materials with our own courses, locally written and produced. It appears that the lion, UNISA, fears competition from the UNAM mouse.

3. The costs of collaboration

When we decided to buy the UNISA courses our main consideration was speed. At the same time, based on the Open Learning Institute of Hong Kong's experience (now the Open University of Hong Kong), I was convinced that, for a predictably small population target audience, courses bought in from outside reputable institutions would be significantly cheaper than self-originated courses. Initial guesstimate calculations, based on prices quoted to us, are quoted below in Chart 1. This is drawn from a paper presented to the Senate of UNAM in October 1996, seeking its approval for the Bachelor of Education degree, UNAM's second external degree. At the time we were proposing a significant increase in fees paid to writers to write courses for us in order to be able to demand quality. This proposal was accepted and all the calculations in later tables are based on those new rates.

Chart 1: Alternative course production scenarios: predicted comparative costs

Option 1: Total local course origination (unlikely)

a) at present tariff rates the cost of total origination of 23* modules, each of 10 units, and each equivalent to 60 contact hours ....N$ 976000

b) at proposed new tariff rates..N$ 1184000

Option 2: 65% local origination, 35% bought-in materials (likely)

a) at present tariff rates and UNISA prices...................................N$ 720000

b) at proposed new rates and UNISA prices.................................N$ 856800

Option 3: 35% local origination, 65% bought-in materials (likely)

a) at present tariff rates and UNISA prices....................................N$ 502800

b) at proposed new tariff rates and UNISA prices..........................N$ 575600

Option 4: Totally bought-in materials (unlikely)

a) at UNISA prices...N$ 248000

(extract from paper to UNAM Senate Meeting 3/96 of October 1996)

* this calculation was based on only 23 modules or the equivalent of eight full-time year courses, significantly less than the B.N.Sc. programme. All

figures would need to be increased by 57% to reflect the full B.N.Sc. programme.

The message of these calculations, which assumed three years development costs and 300 students over those years, was clear: it would cost nearly five times as much to develop all our own courses as it would to buy all the materials from UNISA; the most likely scenario, namely that we would develop no more than 35% of the materials ourselves, would be approximately half the price of developing them all ourselves and about twice as much as buying them all from UNISA. Those cost calculations, combined with the need for speed, and the availability elsewhere of nearly 75% of the courses we needed to meet our curriculum requirements, led us to decide to implement the programme as described above.

Reality turned out somewhat differently. Three things changed as we implemented the programme. First, UNISA, in June 1997, recognising the declining international value of the South African rand, (and presumably seeing a growing international market for its courses) changed its charges from SAR 1000 per course as an annual license fee to US$ 400 (by then equivalent to SAR 1750 and now equivalent to SAR 2500). The per student per course fee changed from SAR 100 to US$ 50, at the time an increase of 100%, now an increase of 200%. Second was the change in the exchange rate itself. This seriously affected the courses bought in from the USA, the UK, Canada or Australia. Between mid 1996 and 1999 the value of the South African rand has declined against the US$ or the pound sterling by nearly 70%. The third change has already been described: in September, UNISA changed its licensing policy; from then on:

> '...no degree-awarding institution in South Africa and the SADC countries can obtain such a license agreement ....The reason for this being that it would provide such an institution with the ability to present the course in competition with UNISA....' (UNISA Policy Paper on the Sale/Licensing of UNISA Study Material, September 1998)

We were informed that, in view of our previous agreement, 'those students who have started the programme during 1998 will be allowed to complete their studies [using UNISA materials]

in the normal prescribed period'. This agreement was subsequently extended on request to students enrolling in 1999. Though it had always been envisaged that a high proportion of the materials would eventually be replaced with local materials, this policy change set a much tighter timetable than we had expected for replacement and allowed for no exceptions. All UNISA materials will be progressively replaced from 2000 onwards; by 2003 we will not be using any UNISA courses.

Chart 2 which follows summarises the actual costs incurred (or predicted) in providing the course materials for this programme. Distinction is made between UNISA licensed courses, courses bought and licensed from other institutions, courses originated in Namibia and the replacement costs of UNISA courses with locally- developed courses. The time-span covered in the calculations for Chart 2 is 1997 to 2001.

Chart 2: the costs in reality

ITEM	1997	1998	1999	2000	2001	TOTAL
1. UNISA licensed materials	5121	26286	300600	188400	70200	1111000
2. Materials bought from elsewhere		7600	154400	150380	140400	497000
3. Local origination and production	128000	105000	154000			387000
4. Local development /revision to replace external courses			141195	136089	117716	395000
TOTAL	133121	375285	739000	622800	264600	2390000

Student enrolment figures for the same period are (and are predicted to be) as follows in Chart 3. It is expected that most of the first intake will complete the programme in 2001 and will graduate in 2002.

Chart 3: Student enrolments ‘97-’07 (actual ‘97-’99; predicted 2000-2007)

Intake	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**
1.	187	141	120	110	100	20					
2.		120	110	100	85	75	10				
3.			60	55	50	48	43	40	8		
4.				50	45	42	40	38	35	6	
5.					50	45	42	40	38	35	8
6.						50	45	42	40	38	35
7.							50	45	42	40	38
8.								50	48	45	42
9.									50	48	45
10.										50	48
11.											50
TOT:	187	261	290	315	425	280	230	255	258	256	256

If we take the total purchase, adaptation, development and replacement costs for the whole programme and divide it by the total student numbers enrolled over the first six year period during which the full programme of materials will have been developed, namely 467 students, the cost per student , of the provision of study materials, is N$ 5118 for the whole programme. Let us make the somewhat arbitrary assumption that the materials used in 2002, i.e. the fully-localised materials, will survive with no more than 10% maintenance costs per annum for a further five years. Presumably more radical revision/replacement will take place thereafter, but those costs will be relevant to the next programme-life cycle, not this first cycle, and are not therefore reflected here. Let us make an even more rash prediction that the average enrolment rates of 2000, 2001 and 2002 will remain valid throughout the five year period of 2003 to 2007. Chart 4 shows the cost per student of materials provision for that 11 year period.

Chart 4: Cost per student of materials provision 1997 to 2007

1. Total cost of materials development(as per chart 2)	2390000
2. Cost of maintenance (2003-2007) @ 10% per annum of local development costs	469200
3. Total course provision costs 1997-2007	2859200
4. Total student enrolment figures 1997-2007	767
5. Cost per enrolled student of materials provision	3727
6. Predicted successful completing students (@ 60%)	460
7. Cost per successful student	6216

Finally, what would the costs have been of alternative materials provision models which we might have followed? We could have originated all course materials locally, and delayed enrolment for one or two years, till the first materials were ready. It is likely that such materials, given the inexperience in materials development of UNAM faculty as materials writers, and of CES staff as editors/instructional designers, would have had to be significantly revised over their first five years of use. Thereafter the same course maintenance needs would have applied. A second scenario is that UNISA might not have changed its policy on licensing, that all materials bought from outside would have been deemed valid Namibian materials without significant further replacement, and thereafter the final product would have been subject to the same maintenance requirements. Chart 5 attempts to predict what the costs would have been, over the same period, of these two alternative scenarios.

Chart 5: Costs of alternative scenarios

Scenarios	Total	per student enrolled	per successful student
Actual programme costs (ie 60% bought-in)	2859200	c.3700	c.6200
Alternative 1: (total bought-in)	1437050	c. 1875	c. 3125
Alternative 2: (continued use of bought-in courses)	4625900	c. 6000	c. 10000

One final consideration is that of income from student fees under the three different scenarios. The real picture, i.e. what actually is happening and is predicted to happen and Alternative 2, in which we continue to use bought-in materials up to 2007, both produce the same income from student fees. Alternative 1, in which we would have originated all our own courses, would have probably necessitated a two year delay in launching the programme, and therefore a two year delay in collecting student fees. A crude estimate of the income from fees (which must be set against the costs of all services provided, not just the materials) suggests that the two year delay in launching the programme would have resulted in approximately a 15% loss in income over the period as against a 10% decrease in expenditure.

4. In the balance: lessons learned on costs and benefits

I suggest that there are six main lessons to be learned from this experience. And I stress that the lessons are extremely subjective, as, I suspect, are most lessons.

1. The first is that most models are extremely unreliable. Predictions can often lead to extraordinarily incorrect assumptions. In this case cost realities proved almost the opposite of early predictions. This resulted from wholly unpredictable changes in policy and exchange rates.

2. In the event, the costs of buying in a large proportion of existing course materials from outside experienced distance education institutions and gradually replacing them with our own locally-originated materials, as compared to originating all our own materials from the outset, proved to be approximately twice as expensive. Had we tried to go on using relevant external materials for a longer period, that would have been nearly 35% more expensive than what we did and 65% more expensive than if we had originated all our own materials from the outset. This is the reverse of what I predicted at the outset, based on the experience of other organisations before us. How wrong can you be?

3. There were, however, very significant benefits to the course we chose to follow. First we were able to meet both institutional and personal training needs significantly earlier than would have been possible had we tried to originate all our own courses from the outset. Secondly, I am

convinced the quality of what we offered to our students at the outset was considerably higher than we could have offered from locally-originated materials because of the lack of open learning instructional design experience of our own staff when we started. As a result of working with the external materials for a year or two, our internal colleagues have learned a lot about open learning instructional design which it would have been hard if not impossible to have taught them theoretically. Not the least of this learning has come from observing the problems and short-comings of the materials we bought in: the period of working with and adapting external materials has served as an invaluable apprenticeship. I am therefore convinced that the quality of what we have offered our students from the outset and what we will offer them in the future has been significantly higher as a result of our sharing approach. I would, and will, repeat the experience in other programmes in spite of the unexpectedly higher costs.

4. It is presumptuous for me to suggest the balance of advantage of the sharing experience for UNISA, especially in the light of their recent policy decision; there clearly was a perceived conflict of interests between co-operation with UNAM and loss of income through lost competition. However, I will presume to suggest that that conflict was self-inflicted and not real. The financial gains for UNISA from the project were not insignificant; the goodwill and increase in reputation were considerable; deciding to treat us as competition was unrealistic as we will produce our own courses which will carry higher local recognition than external qualifications and we will buy in from further afield if UNISA will not sell us their materials, come what may. In the event, their pricing policy priced them out of the market anyway, or at least put them on a par with the products of industrialised countries.

5. Perhaps the most obvious message of this experience is that, under present pricing policies and existing exchange rates between the countries of the ‘North’ and those of the ‘South’, South-South sharing and collaboration in the sharing of materials is the only realistic economic option for South institutions, almost regardless of relevance and quality considerations. This might be undesirable, but it is real.

6. Finally, however, the experience convinces me that the future of quality distance education programmes in countries such as Namibia, with comparatively small target audiences, at least at tertiary level, lies in collaboration between institutions rather than in competition and duplication. Ideally a format must be found which allows such collaboration between institutions of developing nations such as Namibia and the institutions of industrialised nations as well as collaboration between developing institutions. Such a formula must consist of prices which allow a mild but reasonable recompense for the originators of the materials for their initial investment but must make the materials available to the ‘sharers’ at costs which compare with the costs of local origination. Such a formula should not be beyond the imagination of the profession of open educators.

Tony Dodds Windhoek February 1999